ECONOMIC DEVELOPMENT IN SELECTED COUNTRIES

PLANS, PROGRAMMES AND AGENCIES

VOLUME II

UNITED NATIONS
Department of Economic Affairs
Lake Success, New York
February 1950

ST/ECA/4
April 1950

UNITED NATIONS PUBLICATIONS
Sales No : 1950. II.B.1

FOREWORD

This report is the second in the series of studies dealing with economic development programmes of individual countries. The first volume, issued in October 1947, included surveys of the Anglo-Egyptian Sudan (Condominium), Argentina, Bolivia, Brazil, British African Non-Self-Governing and Non-Metropolitan Territories, Chile, Egypt—as well as a brief general account of developments in other countries of the Middle East—French North Africa and French African overseas territories, India, Liberia, Mexico, Peru, Poland, Venezuela and Yugoslavia. The present volume outlines programmes in Australia, Bulgaria, Colombia, New Zealand, the Philippines, Puerto Rico, Southern Rhodesia and the Union of South Africa.

Like the earlier publication, the present report is limited to a factual descriptive account of the most significant aspects of the countries' programmes for economic development and a brief survey of national governmental organizations responsible for the implementation of the programmes. Although the report mentions, in a general way, the obstacles encountered in the various countries and some of the methods of overcoming them, the present volume contains no appraisal of the problems and progress of economic development.

Since the publication of the first volume, the United Nations and the specialized agencies have considerably expanded their technical activities designed to assist the economic development of under-developed countries. The General Assembly on 4 December 1948 inaugurated a programme to enable the Secretary-General to provide technical aid for economic development to Member Governments upon request. Such technical assistance includes arrangements for international teams of experts to advise Governments on economic development programmes, fellowships for the training abroad of experts from under-developed countries, visits of experts to under-developed countries to train local technicians and aid in obtaining personnel, equipment and supplies and in disseminating information on technical aspects of economic development.

As this report is being printed, plans are under way for greatly expanding this type of activity on the part of the United Nations and of the specialized agencies in accordance with programmes approved by the General Assembly at its fourth session.

The report was planned and prepared by the Economic Development Section with the assistance of other sections in the Division of Economic Stability and Development of the United Nations Department of Economic Affairs. It is based primarily on information derived from official sources; in many cases data were obtained from replies to the Secretary-General's request for information which was sent to Members of the United Nations in May 1947.

It is hoped that the data contained in this volume will be of assistance to individual governments and to various international organizations concerned with aid to under-developed countries.

TABLE OF CONTENTS

Australia

Page

I. Economic background 3

II. Organizations for economic development 5

A. Joint Commonwealth and state organizations
  1. Conferences 5
  2. National Works Council 5
  3. Loan Council 6
  4. Agricultural Council 7
  5. Northern Australia Development Committee 8
  6. Council for Scientific and Industrial Research 8

B. Commonwealth organizations 9
  1. Department of Post-War Reconstruction 9
  2. Division for Industrial Development 9
  3. Department of Commerce and Agriculture 10
  4. Investment and Employment Committee 10
  5. Tariff Board 10

C. State organizations 10
  1. New South Wales 11
  2. Victoria 12
  3. Queensland 12
  4. South Australia 12
  5. Western Australia 13
  6. Tasmania 14

D. Regional planning organizations 14

III. Programmes and measures

A. Agriculture and livestock 15
  1. Irrigation and water conservation 16
  2. Research and assistance 19

B. Industrial development

  1. Manufacturing industries 22
  2. Iron and steel 25

Page
C. Power 26
    1. Electric energy 26
    2. Coal 29

D. Housing 31

E. Public works 33

F. Forest conservation and development 35
    1. New South Wales 35
    2. Victoria 36
    3. South Australia 36

G. Development and reconstruction of territories 37
    1. Northern Territory 37
    2. Papua and New Guinea 37

Bulgaria

I. THE TWO-YEAR ECONOMIC PLAN FOR 1947 AND 1948

A. General objectives 43

B. Administration and execution
    1. Distribution of responsibility 45
    2. Financing the plan 46
    3. Allocation of materials 46

C. Specific objectives 47
    1. Agriculture, forestry and fishing 48
    2. Industry 53
    3. Transport 57
    4. Labour 59
    5. Health and education 61
    6. Foreign trade 61
    7. Investment 62
    8. Prices 63

D. Degree of realization 64
    1. Agriculture, forestry and fishing 65
    2. Industry 67
    3. Transport 69
    4. Foreign trade 70
    5. Investment 70

Page

II. THE FIVE-YEAR PLAN FOR 1949 TO 1953 71
- A. Agriculture, forestry and fishing 72
- B. Industry and communications 73
- C. Investment 73
- D. Realization of the plan 74

Colombia

I. ECONOMIC PLANNING AND CO-ORDINATION

- A. General plan for economic development 77
- B. Plans for developing agriculture and livestock 78
- C. Industrial development plan 80
- D. Direct governmental action 81
  - 1. National Economic Council 82
  - 2. National Petroleum Council 84
- E. Proposed five-year plan 85

II. PRINCIPAL AGENCIES FOR ECONOMIC DEVELOPMENT

- A. Industrial Development Institute 87
  - 1. Method of operation 88
  - 2. Capital resources 88
  - 3. Investments 89
  - 4. Activities 91
- B. Agricultural, Industrial and Mining Bank 99
  - 1. Capitalization 99
  - 2. Agricultural Supply Section 101
  - 3. Agricultural Development Section 101
  - 4. Loan operations 102
  - 5. Statement of condition 104

III. OTHER AGENCIES 105
- A. National Institute for Water Utilization and Electrical Development 105
  - 1. Capitalization 105
  - 2. Electrification policy 107
  - 3. Irrigation and drainage 108
- B. Institute for Housing Credit 109
- C. Forestry Development Institute 111
- D. Municipal Development Fund 113

Page
IV. INTERNATIONAL ACTION TOWARDS ECONOMIC DEVELOPMENT ... 114
A. External loans ... 114
B. Economic mission ... 115
C. Greater Colombian Merchant Marine ... 115
D. Gran Colombia Economic Conference ... 116

New Zealand

I. GENERAL BACKGROUND ... 119

II. DEVELOPMENT OF PUBLIC WORKS ... 121
A. Planning ... 123
B. One-year programme ... 126
C. Activities of local authorities ... 127

III. HOUSING ... 129
A. State Advances Corporation ... 130
B. Maori housing ... 131

IV. HYDRO-ELECTRIC DEVELOPMENT ... 132

V. AGRICULTURAL DEVELOPMENT ... 133
A. Land utilization ... 134
B. Land development for Maoris ... 136

VI. DEVELOPMENT OF INDUSTRY ... 137
A. Industrial Development Committee ... 137
B. Trading estates ... 138
C. Linen Flax Corporation ... 139
D. Department of Scientific and Industrial Research ... 140
E. Bureau of Industry ... 140
F. Import controls ... 141

The Philippines

I. GENERAL BACKGROUND ... 145
A. Review of planning ... 147
B. Co-ordination by National Economic Council ... 149

Page

II. INDUSTRIAL DEVELOPMENT PROGRAMMES

A. Proposed programme of National Development Company .. 150
   1. Financing the programme 151
   2. Proposed projects 152

B. Five-year programme of the Government 153
   1. Proposed capital investment 154
   2. Industrial projects 155
   3. Agricultural projects 155
   4. Priority of projects 156

III. DEVELOPMENT AGENCIES AND ACTIVITIES

A. National Development Company 157
   1. Capitalization and investments 158
   2. Activities during Commonwealth period 158
   3. Later activities and projects 161

B. National Abaca and National Coco-nut Corporations 163
   1. Hemp 163
   2. Coco-nut by-products 163

C. National Power Corporation 164

D. National Rice and Corn Corporation 167
   1. Functions 167
   2. Price stabilization 167
   3. Other activities 168

E National Tobacco Corporation 169
   1. Functions 169
   2. Capitalization and activities 170

F. Financial institutions 171
   1. Central Bank of the Philippines 171
   2. Rehabilitation Finance Corporation 172

IV. AGRARIAN MEASURES 174

A. Rice Share Tenancy Act 175

B. Purchase of landed estates 176

C. National Land Settlement Administration 176
   1. Functions 177
   2. Capitalization and organization 177
   3. Koronadal Valley project 179
   4 Plans for development 180

Puerto Rico

Page

I. ECONOMIC BACKGROUND

A. Resources
  1. Agriculture 183
  2. Industry 184
  3. Man-power 185

B. Recent history 185
  1. Relief and rehabilitation measures 186
  2. Effect of the war 186

C. Government action 187
  1. Development activities 188
  2. Agricultural assistance 188
  3. Aid to industry 188
  4. Other projects 190

II. PLANNING BOARD 191

A. Organization and functions 191

B. Six-year programmes 193
  1. Revenues 194
  2. Appropriations 194

III. ECONOMIC DEVELOPMENT 196

A. Agrarian programmes 196
  1. Homestead Commission 197
  2. Reconstruction Administration 197
  3. Farm Security Administration 197
  4. Land Authority 198

B. Agricultural programmes 201
  1. Department of Agriculture and Commerce 201
  2. Experiment station of the United States Department of Agriculture 202
  3. University of Puerto Rico 203
  4. Agricultural Development Company 204

C. Industrial development 206
  1. Industrial Development Company 207
  2. Development Bank 215

D. Power development 215
  1. Water Resources Authority 216
  2. Five-year programme 217

Southern Rhodesia

Page

I. GENERAL ORGANIZATION FOR ECONOMIC DEVELOPMENT

- A. Government departments 221
- B. Development Co-ordinating Commission 222
- C. Cabinet Co-ordinating Committee 225

II. AGENCIES FOR INDUSTRIAL EXPANSION 225

- A. Tariff Advisory Committee 225
- B. Industrial Development Commission 226
- C. Iron and Steel Commission 227

III. MINING 228

- A. Gold 229
- B. Coal and chrome 229

IV. AGRICULTURE

- A. Production and marketing 230
  - 1. Tobacco 230
  - 2. Food products 230
  - 3. Cotton 231
- B. Soil conservation 231

V. ELECTRICITY 232

VI. TRANSPORT

- A. Railways 233
- B. Roads 234
- C. Port facilities 234
- D. Airways 235

VII CONSTRUCTION

- A. Town planning 235
- B. Housing 235

VIII. SPECIAL ASPECTS

- A. Indigenous affairs 236
- B. Immigration 238
- C. Project for the Sabi region 238

Union of South Africa

Page

I. ECONOMIC CO-ORDINATION AND PLANNING

A. General background 243

B. Planning and development agencies
  1. Social and Economic Planning Council 246
  2. Department of Commerce and Industries 247
  3. Industrial Development Corporation 249
  4. Iron and Steel Corporation 250
  5. Electricity Supply Commission 250
  6. Fisheries Development Corporation 251
  7. Railways and Harbours Administration 251
  8. Other agencies 252

C. Research
  1. Council of Scientific and Industrial Research 252
  2. Fuel Research Institute 253

II. DEVELOPMENT PROJECTS

A. Manufacturing industries 253
  1. Industrial assistance 254
  2. Iron and steel 255
  3. Synthetic oil industry 257

B. Electric power 257

C. Transport 258

D. Mining 260

E. Agriculture 262

F. Forestry 264

G. Irrigation 265

H. Land settlement 266

I. Native areas 266

J. Fishing 267

K. Trading estates 268

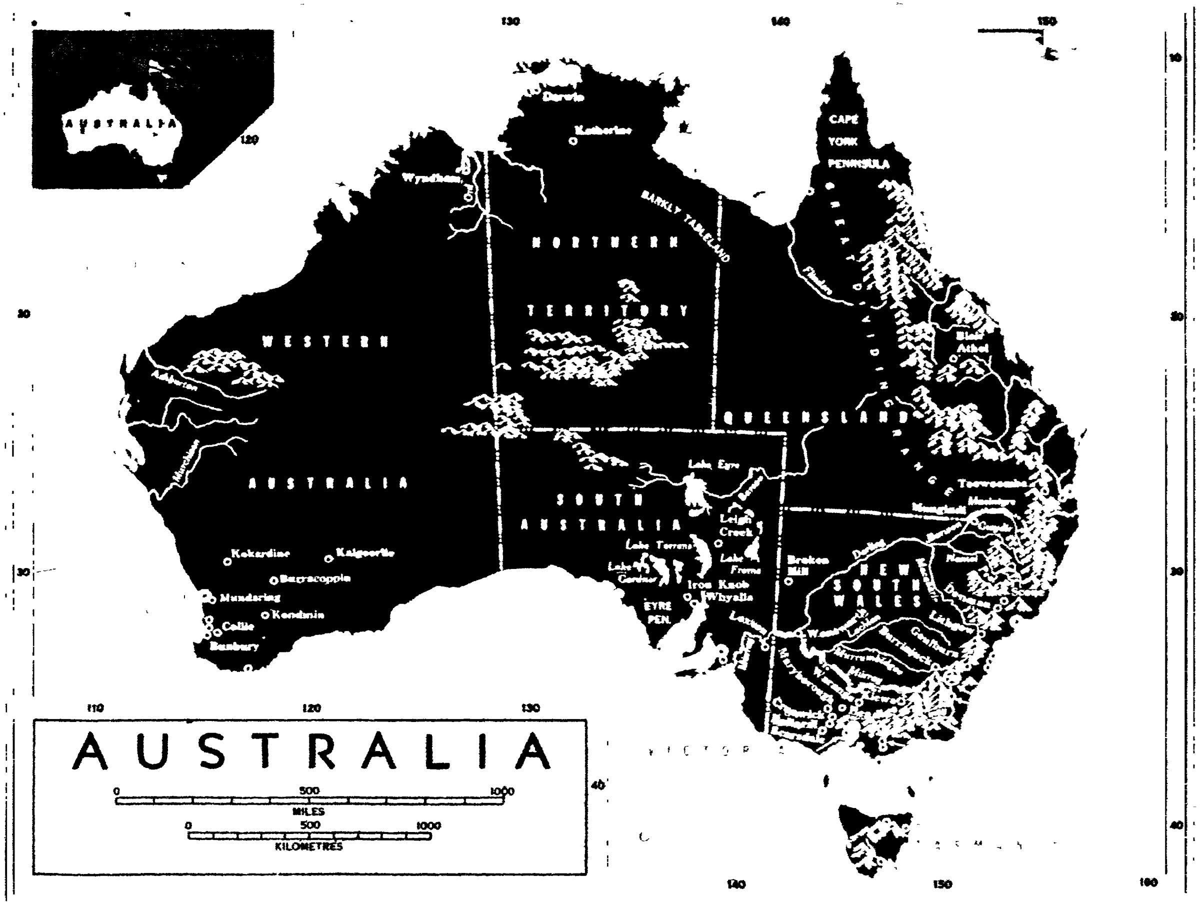
L. Public works 269

M. Financing 269

LIST OF MAPS

Facing page
Australia 3
Bulgaria 43
Colombia 77
New Zealand 119
Philippines 145
Puerto Rico 183
Southern Rhodesia 221
Union of South Africa 243

AUSTRALIA



MAP NO. 156.4
FEBRUARY 1950

UNITED NATIONS

UN PRESENTATION 996.4

AUSTRALIA[1]

I. Economic background

The Australian Commonwealth comprises an area of 2,974,581 square miles, but the vast central area is largely arid land, unsuited to agriculture. Of the total population of about 7.5 million, approximately two-thirds live in cities and towns and about one-third in rural areas.

Australia's chief natural resources are pasture and agricultural lands, mines and forests. Before the First World War, the Australian economy was chiefly pastoral and agricultural, and primary production accounted for the major part of the national income. Until the Second World War, the value of primary production generally exceeded that of factory production.

Wool and wheat are the two principal products of Australian pastoral and agricultural industry and the two main export commodities. Before the war, Australia had a flock of about 120 million sheep, or one-sixth of the world total, and produced more than a quarter of all the world's wool.

The principal crops are wheat, oats, maize, hay and sugar-cane. Wheat, the most important, represents some 60 per cent of the total cultivated area of 23 million acres. During the ten crop years from 1932/33 to 1941/42, wheat production averaged 162 million bushels annually. Because of unfavourable weather, wheat production in 1946/47 was only 117 million bushels, but in 1947/48 it rose to 220 million bushels, one-third above the pre-war level.

Certain pastoral and dairy products—butter, cheese, bacon and ham—are normally sufficient to meet local demand and to provide a substantial surplus for export. Pastoral industry also provides the large part of the country's meat supply. About 75 per cent of the mutton and lamb slaughtered is consumed locally; the balance is exported, almost entirely to the United Kingdom.

The most important minerals produced in Australia are coal and gold; silver, lead, zinc, copper, tin and iron ore are also obtained. Over 71 per cent of the mining output was exported before the war.

---

[1] Information for this chapter was obtained from a reply by the Government of Australia to a questionnaire submitted by the Secretariat of the United Nations in May 1947, and from other official sources. This report is concerned with economic development that has been fostered by Government agencies and omits reference, except in the case of iron and steel, to the substantial amount of economic development by private interests that has taken place since the war.

Both bituminous coal and lignite are produced in Australia, chiefly from coal deposits located along the eastern edge of the continent and in Tasmania. The probable coal resources of Australia have been estimated at 13,700 million tons[2] of anthracite and bituminous and 38,500 million tons of lignite and sub-bituminous coal. Average annual coal production during the five years ended 30 June 1939[3] was more than 11 million tons of bituminous and 3 million tons of lignite.

Australia also has important deposits of iron ore, an essential basis for heavy industry. Iron ore deposits are located in many parts of Australia, but are easily accessible in only two places, Yampi Sound in north-western Australia and Iron Knob in South Australia. These two reserves are estimated at 100 million tons and 150 million tons, respectively.

Before 1914, manufacturing industry in Australia was largely confined to food processing and the production of such consumer goods as clothing. The First World War witnessed an increase in the number and output of factories and in the variety of goods produced. The 1920's saw considerable experimentation in new industries, such as iron and steel, which laid the foundation for rapid expansion in production. Manufacturing industry developed quickly after the depression of the 1930's, and many commodities which were previously obtained from abroad began to be produced in Australia; the number of factories, number employed in secondary industry, volume of production and output per person increased. Just before the Second World War, the net value of Australian manufactures exceeded that of primary production, and war demands further accelerated the rate of industrial expansion. From 1939 to 1945 the number of factories increased by 2,000, and production by 78 per cent; the number of persons engaged in manufacturing increased 35 per cent from 1939 to 1944.

Australian exports consist mainly of primary products. During the decade from July 1933 to June 1943, such products furnished 90 per cent of the value of all export commodities. Pastoral products accounted for 47 per cent of all exports; agriculture, 19 per cent; mining, 14 per cent; and dairy, poultry, forestry and fishing products, about 10 per cent. Manufactures contributed about 10 per cent of all exports. The bulk of the wool output was exported; only about 10 per cent of the total was used locally. A large proportion of the wheat was also exported, both as grain and as flour. During the fiscal year 1948, the combined value of wheat and wool exports formed more than 55 per cent of the total.

The standard of living of the Australian population is relatively high and has been compared favourably with that of industrialized countries.

---

[2] Throughout this chapter references to tons indicate long tons of 1,016.06 kilogrammes.

[3] In general, Australian fiscal and other data are for years ended 30 June.

It rose significantly in the post-war period; per capita personal consumption in constant prices was 8 per cent above the 1940 level in 1947 and 22 per cent above 1940 in 1948.[4]

II. Organizations for economic development

In accordance with the constitutional division of powers between the Commonwealth Government and the six federated states which comprise the Commonwealth of Australia—New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania[5]—matters not specifically allocated to the Commonwealth Government are the responsibility of the states. As a consequence, state jurisdiction includes education, public health and the regulation of agriculture, industry, transport and commerce within the state. Economic development in such fields as water conservation, irrigation, power, railways, roads and forests is therefore the responsibility of the various state governments.

The Commonwealth Government, however, plays an important role in economic development, since its jurisdiction covers oversea trade and it is the sole authority for levying customs, excise and income taxes. It may also exercise considerable influence over the states in floating loans, the customary Australian means of financing development projects.

The Commonwealth Government usually seeks the co-operation of the separate state governments in matters of economic development of nation-wide scope which lie within state jurisdiction, by means of joint Commonwealth and state conferences and organizations.

A. Joint Commonwealth and State Organizations

1. *Conferences*

At least once a year a meeting of the premiers of the states is held with the Commonwealth Prime Minister to discuss matters of mutual interest to the Commonwealth and state governments. Conferences of Commonwealth and state ministers are specially convened, as required, to consider specific matters.

2. *National Works Council*

The Council was set up by the decision of a Premiers' Conference in 1943. It is composed of the Prime Minister, the Minister of Post-War Reconstruction, the Premier of each state and the Co-ordinator-General of Works, who is the Council's chief executive officer.

---

[4] Data from Statistical Office of the United Nations and Commonwealth of Australia, *National Income and Expenditure 1947/48.*

[5] Listed in order of size of population.

The Co-ordinator-General is assisted by the Department of Post-War Reconstruction; certain officers of the Department work directly in the Co-ordinator-General's office, while other officers perform special assignments for the Co-ordinator-General and the National Works Council. The Co-ordinator-General's staff, together with the state co-ordinators and the staff conducting special research in the Department of Post-War Reconstruction, comprise the secretariat of the National Works Council.

The Co-ordinator-General of Works was appointed to the Australian Loan Council, described below, during the Second World War to review the work programmes of each state, to report the results of his examination to the Loan Council and to recommend loans for the consideration of the Loan Council. Each state appointed a Co-ordinator of Works to co-operate with the Loan Council's Co-ordinator-General.

In 1943, a Premiers' Conference decided that the office of Co-ordinator-General should be continued beyond the war period, to perform the detailed work involved in building up a reserve or "shelf" of planned projects for the immediate post-war period. The Co-ordinator-General was authorized, in co-operation with the state co-ordinators, to secure details of all the projects which the Commonwealth and each state, local government and semi-governmental agency wished to undertake when the war was over. The Co-ordinator-General was asked to submit a programme including these projects to the National Works Council for endorsement.

The Co-ordinator-General has the further task of reporting on the volume of work to be undertaken at particular phases of the business cycle and to recommend to the National Works Council the portions of the reserve which are actually to be undertaken at the proper time.

The functions of the National Works Council consist of adoption of policy on the planning of work programmes, approval of the programmes submitted by the Co-ordinator-General and supervision of activities related to national work projects.

The National Works Council has so far concerned itself only with projects which were postponed during the war and are urgently needed for reconstruction purposes. Since the reserve of public work projects is to be continued, it is assumed that the National Works Council will have further responsibilities relating to the preparation of a long-term programme of development.

3. *Loan Council*

The Australian Loan Council, set up in 1924 to eliminate competition among the Commonwealth and state governments for loan funds, was formally established in 1927. It was the result of a financial agreement between the Commonwealth and the state governments, which was ratified by the parliaments and given legal status under the Constitution by referendum.

The Loan Council consists of one representative of the Commonwealth Government—the Commonwealth Treasurer, who has three votes—and one representative of each of the six states—the treasurer of each state government, who has one vote; the Commonwealth, therefore, needs the support of only two states to make its will effective.

The Council meets at least once a year to review the loan flotations required for all Government lending programmes during the ensuing financial year. The Council's approval is required for all borrowing, including loans to meet revenue deficits, except Commonwealth loans for defence. It is the Council's duty to determine the amount that can be borrowed at reasonable rates and under favourable conditions. Since most developmental expenditure in Australia is financed by loans, and since Commonwealth and state governments, to the extent that they are unable to balance their budgets, are dependent on borrowing to carry on their ordinary business, the Council is in a position to require the state governments to conform to general economic policy.

4. *Agricultural Council*

The Australian Agricultural Council was set up in 1934, mainly to provide a medium for consultation and co-operation among the Commonwealth and the states on agricultural questions of mutual interest.

The Council consists of the Commonwealth Minister for Commerce and Agriculture and the six state ministers for agriculture.

The functions of the Council are (*a*) to promote the general welfare and development of agricultural industries; (*b*) to arrange the mutual exchange of information regarding agricultural production and marketing; (*c*) to co-operate for the purpose of ensuring improvement in the quality of agricultural products and the maintenance of high-grade standards; (*d*) to ensure balance, so far as possible, between production and available markets; (*e*) to consider the requirements of agricultural industries with regard to organized marketing; (*f*) to promote the adoption of a uniform policy regarding external marketing problems, particularly those pertaining to the negotiation of British Commonwealth and international agreements; (*g*) to consult one another with regard to proposals for the grant of financial assistance to agricultural industries; and (*h*) to consider matters submitted to the Council by the Standing Committee on Agriculture.

The Standing Comiittee on Agriculture was established as a permanent technical committee to advise the Council on the matters outlined above. It consists of the permanent heads of the state departments of agriculture and representatives of the Commonwealth Department of Commerce and Agriculture, the Commonwealth Council for Scientific and Industrial Research and the Commonwealth Director-General of Health.

5. *Northern Australia Development Committee*

The Committee was constituted as a result of a resolution adopted at the Premiers' Conference in April 1946, to investigate matters relating to the future defence of northern Australia[6] and the development of harbours, railways, roads and lands, etc. important to defence.

The Committee comprises the Prime Minister, the Minister for the Interior and the Premiers of Queensland and Western Australia.

The Committee is authorized to examine and initiate proposals to be financed entirely by the individual states of Queensland and Western Australia and by the Northern Territory, or jointly by the state and the Commonwealth Government. The objectives of such proposals include an increase in the population, the welfare and progress of aboriginal inhabitants in the area and the best utilization of land and other resources. In particular, the Committee is instructed to investigate and report on measures necessary for the development and expansion of the Northern Territory's economy.

By 30 June 1947, the Northern Australia Development Committee had held three meetings in Canberra and Melbourne and had initiated action designed both to arrest the drift of population from areas in northern Australia and to encourage settlement and development of primary and secondary industries in these areas.

6. *Council for Scientific and Industrial Research*

By the Science and Industry Research Act of 1926, the former Institute of Science and Industry was reorganized and renamed the Council for Scientific and Industrial Research.

The Council consists of five members nominated by the Common wealth Government, the chairman and vice-chairman of each state committee for research constituted under the Science and Industry Research Act and such other members as the Council may co-opt because of their scientific knowledge.

The principal functions of the Council are (*a*) to initiate and perform scientific research in connexion with primary or secondary Australian industries; (*b*) to train research workers and to establish industrial research fellowships; (*c*) to make grants-in-aid for scientific research; (*d*) to establish industrial research associations in specific industries; (*e*) to test and standardize scientific apparatus and instruments; (*f*) to establish a Bureau of Information; and (*g*) to act as liaison between Australia and other countries in matters of scientific research.

The Council has fifteen divisions and twenty laboratories and employs over 2,000 persons. A number of stations have been established in various parts of Australia to conduct investigations requiring experimental work in the field.

---

[6] Including the Northern Territory, the north-western area of Western Australia and the northern part of Queensland.

The funds for the Council are derived from two main sources: from Commonwealth revenue by Parliamentary appropriation, and from industry, directly or by means of contributions and special grants.

In order to assist persons engaged in scientific research or in training students in scientific research, a fund of £A 100,000[7] was established under the Science and Industry Endowment Act of 1926. This fund is controlled by a trust consisting of the Commonwealth nominees on the Council.

B. COMMONWEALTH ORGANIZATIONS

No single Commonwealth department is charged with entire responsibility for national economic planning. Much of the economic planning is performed by ministerial committees and inter-departmental committees of officers; these also arrange the co-ordination of work and the allocation of research.

Many Commonwealth departments, including the Treasury and the Departments of Works and Housing, Interior, Labour and National Service and Trade and Customs, are concerned, directly or indirectly, with economic development. Their functions and powers are similar to those usually vested in such departments and are therefore not described here in detail. The following are the principal Commonwealth departments and authorities more specifically concerned with economic planning.

1. *Department of Post-War Reconstruction*

The Department of Post-War Reconstruction is in charge of employment, investment projects and regional planning. It administers the Commonwealth Reconstruction Scheme, which provides professional, technical and agricultural training for former members of the armed services. It also has charge of the Regional Planning Division, described below.

2. *Division for Industrial Development*

In October 1943 the Commonwealth Government appointed a Secondary Industries Commission under the Department of Post-War Reconstruction. It was reconstituted as the Division for Industrial Development in January 1948. Its functions are to review industrial developments which took place during the war, especially with a view to recommending alternative uses for Government war factories; generally to assist industry in the transition from war production to peace-time operations; and to advise the Government, as required, on post-war developments in Australian industry.

---

[7] The approximate exchange rate of the Australian pound was somewhat over US$3.20 between 1941 and 1948. It fluctuated from about US$3 to about US$4 from 1937 to 1940.

The Division maintains continuing collaboration with the states by means of meetings with state liaison officers. Where appropriate, trade advisory panels, representative of all sections of particular industries, are established to advise the Division.

A section of the economic research staff of the Department of Post-War Reconstruction is attached to the Division. This section is engaged in examining the economic aspects of post-war production and marketing problems, associated problems of employment in secondary industries, especially during the transition period from war to peace, and problems involved in financing industrial development.

3. *Department of Commerce and Agriculture*

The Department of Commerce and Agriculture administers Commonwealth policy with regard to primary production. It assists generally in the co-ordination of activities of the state departments; facilitates consultation and the exchange of ideas among the states; and provides expert advice on agricultural methods and marketing economics.

The Bureau of Agricultural Economics of the Department performs research in economic aspects of agriculture.

4. *Investment and Employment Committee*

The Investment and Employment Committee is an inter-departmental organization which maintains a close watch over public and private investment trends and changes in the pattern of the economic situation. It is considered a part of the National Works Council, and is responsible for the study of employment and investment problems.

5. *Tariff Board*

The Tariff Board was set up under the Tariff Board Act, 1921 to 1934. It consists of four members; one is an administrative officer of the Department of Trade and Customs, who may be appointed Chairman of the Board. The purpose of the Board is to maintain a continuing review of customs and excise tariffs and to investigate matters relating to tariff protection in specific secondary industries.

C. STATE ORGANIZATIONS

The constitutional powers held by the state governments authorize each state government to formulate its own policy with regard to such matters as water conservation, power development, land settlement, soil conservation, forests, railways, roads, housing and social services. These are usually handled by the appropriate state department. Most of the states now have a central co-ordinating authority; for example, Victoria has set up a State Development Committee for this purpose.

Apart from the activities of the various state departments, the following are among the most important special organizations of the six state governments.

1. *New South Wales*

State Development Council. The establishment of the State Development Council was approved by the Cabinet of New South Wales in September 1946. It is composed of the Premier, the Chairman of the Council, the Ministers for Public Works and Local Government, Housing, Transport, Conservation and the Minister in charge of building materials.

The Cabinet established the functions of the Council as follows:

(*a*) When necessary, to determine policy to be followed by the government in relation to public works generally and developmental projects in particular;

(*b*) To give decisions in respect of investigations and undertakings of major governmental development projects, for example, the Snowy River scheme, a north coast port, etc.;

(*c*) Where necessary, to co-ordinate the activities of the various governmental authorities to ensure that maximum progress is made on projects urgently required in the interest of development in the state;

(*d*) From time to time to review the progress of state undertakings;

(*e*) To determine policy matters relating to building materials in short supply, to ensure the equitable distribution of materials on a priority basis; and

(*f*) To determine policy matters in relation to industrial development and the decentralization of industry.

Secondary Industries Division. The Secondary Industries Division was established in the Department of Labour and Industry in July 1946. Its main functions are:

(*a*) To keep the government informed concerning the situation and prospects of secondary industries in the state; to study trends and make forecasts of future development; to report on conditions unfavourable to industrial expansion and efficiency; and to report on methods and measures by which the government may promote or foster further industrial development;

(*b*) To collaborate with other state departments and agencies which are concerned with the development and decentralization of secondary industries;

(*c*) To give direct assistance and advice to manufacturers in order to promote their expansion, increase their efficiency and maintain maximum employment; and

(*d*) To give information and assistance to oversea and Australian firms which contemplate the establishment of new factories or new industries in New South Wales.

2. *Victoria*

State Electricity Commission. The State Electricity Commission was constituted by act of Parliament in 1918, to promote electrical progress in a systematic and economic manner, by developing and pooling Victoria's power resources on a state-owned and state-wide basis.

Subsequent laws empowered the Commission to aid in co-ordinating, extending and standardizing the supply of electric current, consolidating undertakings and standardizing rates for electricity—by acquiring and operating individual undertakings; controlling the establishment of new undertakings, both private and municipal; and controlling the charges of those undertakings which it supplies in bulk.

The developmental work mentioned in the original act includes investigating, surveying and boring to ascertain the existence of coal deposits or water power suitable for the generation of electricity; establishing and operating open-cut workings for the production of raw lignite, and establishing and operating lignite briquetting plants and plants for the recovery of by-products; and selling coal, pulverized coal, briquettes and by-products.

3. *Queensland*

Bureau of Industry. This agency was established and defined in a number of Bureau of Industry Acts adopted between 1932 and 1943. It consists of a maximum of nine members.

The duties of the Bureau are, in general, to maintain a continuing review of activity and employment in all industries; to make recommendations regarding industrial activity and employment; to acquire and disseminate information concerning economic conditons in Queensland, including income, production and measures of industrial efficiency; and to collect statistical and other information relating to Queensland.

In order to foster and stimulate industrial development, an Industries Assistance Board was also established. Its primary duty is to render financial assistance for developing particular industries by making loans or guaranteeing the repayment of loans to persons engaged in business.

4. *South Australia*

Industries Advisory Committee. The Industries Advisory Committee is composed of five members and a chairman; two members represent the Chamber of Manufacturers and two members represent the Chamber of Commerce.

The Chairman of the Commission acts as liaison between the South Australian government and the Commonwealth Division for Industrial Development; he co-ordinates Commonwealth and state activities in the field of secondary industries.

The Committee's functions are, generally, to furnish advice concerning measures which the Committee recommends for the purpose of restoring, developing and expanding industries and, in particular, to furnish advice concerning proposals and recommendations affecting South Australia that are submitted by the Commonwealth Division for Industrial Development and to give counsel regarding ways in which the state government can assist the Commission.

Industries Development Committee. This committee was established under the Industries Development Act of 1941, as amended in 1943.

The Industries Development Committee consists of two members of the Legislative Council, one of whom is selected by members of the opposition from among their number; and two members from the House of Assembly, one of whom is similarly selected by the opposition members from among their number. The Chairman of the Committee is a member of the Legislative Council or the House of Assembly and is appointed by the Governor.

It is the Committee's duty to investigate and report on applications for guarantees, grants or loans which are referred to the Committee by the Treasurer. Under the act, the Treasurer may guarantee repayment of a loan for the purpose of enabling an individual to establish or carry on or extend an industry; these guarantees are not to be given unless recommended by the Industries Development Committee.

An amending act established a fund of £A 100,000 for secondary industries in rural areas.

5. *Western Australia*

Department of Industrial Development. The Department and the Ministry of Industrial Development were created in 1933 to aid in the progress of secondary industry in Western Australia. Its duties are to assist and encourage the expansion of existing secondary industries and the establishment of new ones, and to provide technical advisory services to manufacturers.

A Council for Industrial Development was established as an adjunct to the Department of Industrial Development and is under its supervision. It comprises several members of the Legislature, members of other government departments and representatives of manufacturers in Western Australia. It is solely a consultative body.

The Council is assisted by a number of industrial panels that function within the Department of Industrial Development. The panels consist of experts in specific industries, who are appointed when questions arise concerning the development of particular industries in the state.

A working liaison exists between the Commonwealth Division for Industrial Development[8] and the Department of Industrial Development of Western Australia. Co-operation between federal and state authorities has minimized overlapping functions.

---

[8] Formerly the Secondary Industries Commission.

The Department of Industrial Development has power to recommend financial assistance to manufacturers and to advise the state government concerning purchase, by private manufacturers or the government, of private land required for industrial purposes. The Department may also build factories and may acquire necessary equipment for lease to private individuals.

When private manufacturers are unable or unwilling to undertake the development of a particular industry, the state government may establish a concern of its own. In such cases, the Department of Industrial Development makes plans for the industry.

6. *Tasmania*

Hydro-Electric Commission. The Hydro-Electric Commission is a corporate body established by the Hydro-Electric Commission Act of 1944, which embodies the Hydro-Electric Commission Act of 1939 and amendments. The Commission consists of a commissioner and two associate commissioners, appointed by the Tasmanian Governor-in-Council for a maximum period of five years.

The Commission is responsible for the construction, operation, management and control of the state's water resources, including the generation, transmission, distribution and sale of electricity, and for supplementary incidental activities.

D. REGIONAL PLANNING ORGANIZATIONS

Following a Premiers' Conference in 1944, a Regional Planning Division was established within the Department of Post-War Reconstruction to stimulate regional planning and to maintain contact with state authorities concerned with regional development; regional planning activities within the respective states are co-ordinated by state authorities. The Division is charged with the collection and dissemination of information on natural resources in certain regions and with participation in specific projects, such as the development of northern Australia and the Snowy River project.

In New South Wales and Victoria regional boundary committees were formed to define regional areas which cross state lines. Regional planning committees were established for given regions of New South Wales, Victoria and Tasmania, in order to bring local knowledge and experience to bear on problems of local development. Regional boundaries were also defined in Queensland and South Australia, but regional planning committees were not formed. In Western Australia, the regional planning authorities generally work through local councils, but several committees with planning functions have been established. Committees have not been formed in the sparsely populated territories.

In New South Wales and Victoria the committees are composed of twelve members of whom six are representatives of municipalities and six are technical experts in the particular problems of the region.[9] Regional planning committees in Tasmania are composed of seven members: three are municipal representatives, two are nominees of the state government and two are technical representatives appointed by the state government.

The functions of the regional planning committees are to advise and assist Commonwealth and state authorities, through state government channels, on regional aspects of policy and administration. The committees do not exercise executive power, but are mainly engaged in studies of regional resources in order to provide basic data for the preparation of development plans for each region.

III. Programmes and measures

A. AGRICULTURE AND LIVESTOCK

During the war, primary producers enjoyed comparatively stable incomes despite shortages of man-power and materials. In order to maintain the prosperity of rural industries[10] and to guide the development of agricultural and livestock industries in the post-war years, a Rural Reconstruction Commission was appointed early in 1943 to report on measures for the development and rehabilitation of agricultural and livestock industries. The Commission subsequently produced a number of reports which provided a valuable basis for Government formulation of policy on agricultural and pastoral industries and related matters.

In 1946 the Australian Government made public a policy for the post-war period which contained the following general objectives:[11] (*a*) to promote a successful general economic and employment policy to ensure adequate markets for agricultural and livestock industries; (*b*) to provide greater stability and security of farm incomes; (*c*) to promote more efficient farm practices and so reduce the cost per unit of output; (*d*) to conserve and develop water, soil and other natural resources; and (*e*) to improve the conditions of country life.

---

[9] The committee in New South Wales includes three or four senior officers of the state government.

[10] Including agriculture, pastoral industries, dairying, poultry-raising, bee-keeping and the processing of farm crops and livestock products.

[11] A detailed account of this policy is contained in a report reproduced at the Central Drawing Office, Maribyrnong, Australia, *A Rural Policy for Post-War Australia: a Statement of Current Commonwealth Policy in Relation to Australia's Primary Industries.*

1. *Irrigation and water conservation*

The problem of water supply is a vital consideration in the development of rural industries. For the most part, Australia is a hot, dry land; only in the coast regions is there sometimes abundant rainfall. The average annual rainfall over two-thirds of the total area is under twenty inches. Furthermore, the country lacks great river systems; the Murray River and its tributaries are the only more or less permanent and commercially useful rivers. The country is subject to droughts which, from time to time, cause substantial reduction in production.

Australia has improved the water supply situation by using artesian water, which is abundant, and by water conservation and irrigation policies which the Government has followed for many years.

The largest underground water in Australia is the Great Artesian Basin, which measures about 600,000 square miles, in Queensland, South Australia, New South Wales and the Northern Territory. Smaller artesian basins include the Western Australian basin and the Murray River basin. The former comprises five separate basins, of which the Coastal Plain basin is used successfully. The Murray River basin, in New South Wales, Victoria and South Australia, has been bored in Victoria, and the water has been utilized.

The underground water is of good quality and can be obtained at reasonable depths. Many thousand square miles of pasture land depend almost entirely on artesian and sub-artesian supplies.

Water storage and irrigation have played an important role in the growth of Australian rural industries. Supplemental water supplies were essential to the development of the Victorian northern plains. About one-fourth of the entire area of Victoria depends on storage facilities for drinking water for domestic use and livestock. Irrigated fruit areas produce two-thirds of Australia's dried fruits. In New South Wales an irrigated area of 20,000 acres devoted to rice growing produces the whole of Australia's requirements of this commodity.

Among the most important waterworks are the Goulburn system in Victoria, whose two reservoirs, Eildon and Waranga, are capable of watering a third of a million acres; Hume reservoir on the Murray River, capable of storing 1,250,000 acre-feet; Burrinjuck dam on the Murrumbidgee River in New South Wales, with a capacity of 771,600 acre-feet, serving an area of 60,000 to 70,000 acres of rice, fruit and fodder crops; and Wyangala dam, with a capacity of 303,900 acre-feet on the upper Lachlan River.

Irrigation in South Australia is confined mainly to supplying a number of settlements; the greater part of the total irrigated area is used for fruit and vine cultivation. In Western Australia, the Kalgoorlie pipe-line scheme is the main irrigation system; another irrigation project near Denmark made the state self-sufficient with regard to butter and cheese. The principal irrigated land in Queensland is the Inkerman area of 6,000 acres, which is entirely devoted to sugar-cane cultivation.

During the post-war period, individual Australian states undertook important water supply projects, which will require large amounts of capital for many years. Some of these are described briefly below.

New South Wales. In 1944 the Water and Soil Conservation Advisory Committee of New South Wales submitted to the Premier a report which formulated a comprehensive programme for developing the principal inland rivers of the state. The long-range programme covered the construction of waterworks over a period of about fifteen years, at an estimated cost of approximately £A 30 million. It provided for some eighteen dams and reservoirs, eight diversion weirs, flood mitigation and river protection work and deep and shallow boring. In addition, weirs were proposed for the Darling River and some other rivers, including coast streams.

About 5.5 million acre-feet of water would be impounded by the proposed new reservoirs and upwards of 20 million acres of holdings, would receive water for domestic use and livestock. The total irrigated area may not exceed 1.5 million acres, however, because water would be available for irrigating only part of each holding.

Specific projects include the construction of Keepit dam on the Namoi River. Preliminary work for the main construction is under way and work on the subsidiary earth-fill dam has been started.[12]

Construction has also been under way since December 1946 for a large storage dam on the Macquarie River at Burrandong. Its capacity will be about 500,000 acre-feet, and it will have a distributing network for supplying a large area along the lower river and creeks with water for domestic use and livestock and for flood irrigation in the Macquarie marshes.

It is proposed to provide further storage on the Murrumbidgee system by means of a dam on the Tumut River, which will include weirs and distributory works for extensive irrigation and stock supplies and, with the proposed Snowy River diversion works, described below, will utilize additional water that will become available.

Along the Hunter River, the construction of a reservoir dam for the main river and its tributaries, with a total capacity of about 4 million acre-feet, is considered a work of high priority. An enabling act for the construction of the Glenbawn River dam, with a capacity of about 120,000 acre-feet, was adopted in April 1946, and construction was begun in October of the same year. The water would be released to improve the river flow and to provide a piped supply to an irrigation district with a total area of about 31,000 acres, comprising the river flats between Scone and Denman.

---

[12] New South Wales, *Report of the Water Conservation and Irrigation Commission for the Year Ended 30th June, 1948.*

It is proposed to construct a series of weirs on the Barwon and Darling Rivers between Mungindi and Wentworth, from which water could be diverted by landholders. Legislation providing for thirty to forty weirs, at an estimated cost of about £A 450,000 ($US1.45 million) was adopted in October 1945. Construction proceeded during 1947 and 1948 but was later interrupted by floods. Upon the completion of the programme, the total river frontage served on both banks is expected to be about 2,600 miles.

The programme for the Lachlan River includes a dam on the Belubula River and reservoirs on the lower Lachlan River. Other important features in the long-range programme are the development of the north-western area of New South Wales by reservoirs on the Dumaresq, Macintyre, Gwydir and Peel Rivers. A distributing network will supply water from these reservoirs to a large area, mainly for domestic use and livestock, but also for irrigation in some localities

It is also proposed to provide a series of weirs on the portion of the Macintyre and the Barwon which constitutes the border between New South Wales and Queensland. This work will be carried out in conjunction with the Department of Irrigation and Water Supply of Queensland.

Victoria. Large-scale water projects in Victoria include the extension of the Eildon reservoir at a cost of £A 9 million—a project approved by the state authorities.[13] Upon completion, the capacity of the reservoir will be increased to 2.35 million acre-feet. Duplication of the Waranga inlet channel from the Goulburn is also planned; this will irrigate thousands of additional acres and will cost about £A 1 million. It is proposed to build a reservoir with storage capacity of 60,000 acre-feet at a cost of £A 600,000 on Tullaroop Creek near Maryborough. Enlargement of the Hume weir from its present capacity of 1.25 million acre-feet to 2 million acre-feet is also projected.

Queensland. Queensland's post-war programme, which includes £A 655,000 ($US2.1 million) for water conservation and irrigation, has been approved by the National Works Council. This programme constitutes a reserve supply from which projects can be selected as the necessary investigation is completed.

South Australia. Extensive work and investigation are now under way in South Australia for the improvement of water distribution in the metropolitan area of Adelaide.

To provide for the future development of the Eyre peninsula, work is in hand to augment the water supply from existing reservoirs by utilizing water from a large underground basin near the southern extremity of the peninsula. It is estimated that the work will cost £A 1.5 million.

---

[13] Australia, Department of Commerce and Agriculture, *News Bulletin*, 30 April 1949.

There is also an irrigation project at Loxton on the Murray River It is expected that when fully developed it will irrigate approximately 300 individual properties for growing grapes, citrus crops and other fruits.

Western Australia. Water conservation and irrigation plans for Western Australia during the post-war period include the Comprehensive Water Supply Scheme, which is designed to assure an adequate water supply to farmlands, towns and railways in an initial area of approximately 2.3 million acres, from Kokardine in the north to Kondinin in the south and as far as Burracoppin in the east. The storage reservoir at Mundaring, part of the gold-fields waterworks, built in 1904, is to be enlarged from a capacity of 4,500 million gallons to a storage capacity of 11,000 million gallons.

In addition, it is planned to enlarge the Wellington dam near the town of Collie. The present 29,000 acre-feet storage capacity of this dam, which was constructed in 1934, is to be expanded to 160,000 acre-feet.

In the north-western part of the state, a projected storage reservoir on the Ord River, with capacity tentatively estimated at 2 million acre-feet, is expected to serve an estimated irrigable area of approximately 100,000 acres.

2. *Research and assistance*

Under the Australian Constitution, the advancement of agricultural production is primarily the responsibility of the state governments. The Commonwealth Government is, however, responsible for certain phases of the marketing of primary products, particularly exports from Australia. Various Commonwealth acts and regulations were adopted, and boards and councils were established to assist or control the marketing of Australian commodities. These included, for example, the Dairy Produce Export Control Act, 1924 to 1938, which created the Dairy Produce Control Board; the Dried Fruit Export Control Act, 1924 to 1938, which provided for a control board; and the Meat Export Control Act, 1935 to 1946, which established the Australian Meat Board. These boards deal with matters relating to the organization and supervision of oversea marketing of produce within their jurisdiction. Their activities include regulation of shipments, negotiations with foreign countries to obtain reductions in oversea freight and insurance rates, control of export by licence and promotion of oversea sales by advertising.

During the war additional statutory agencies were established to control and market wheat, fruit, tobacco and other commodities. These agencies, under the auspices of the Commonwealth Government, made special arrangements with the United Kingdom with regard to trade in wool, meat, dairy produce, fruit, wheat, barley, etc.

In general, the activity of the Commonwealth and state governments in the field of agricultural development has four major aspects, following the adoption of policy: research; agricultural extension services; agricultural education; and financial assistance.

Research. One objective of post-war rural policy is to improve the efficiency of production and to reduce the cost of output by means of biological and economic research. Commonwealth and state governments provide assistance to agricultural and livestock producers by means of agencies which conduct research in many varied aspects of rural industry.

The Commonwealth organizations responsible for performing and co-ordinating research are the Agricultural Council, the Department of Commerce and Agriculture and the Council for Scientific and Industrial Research, referred to above.

The Agricultural Council, through its standing committee on agriculture, is a co-ordinating body to ensure co-operation and co-ordination among research projects undertaken by various organizations. The Commonwealth Department of Commerce and Agriculture, through its Bureau of Agricultural Economics, studies mainly the economic aspects of agricultural and pastoral problems. The Council for Scientific and Industrial Research, which is the principal organization for agricultural research, co-ordinates the work of other research agencies.

In 1946 the Council for Scientific and Industrial Research established a Textile Research Division, with an annual grant of £A 300,000, to improve the economics of wool production, following the threat of competition of fibre products. Research in this problem involves several divisions of the Council—among them, the Divisions of Biochemistry and General Nutrition, Animal Health and Production and Plant Industry—and extensive co-operation with state departments of agriculture.

The Council is also attempting to develop legumes that will thrive in central and northern Queensland, to help maintain soil fertility in these areas.

The Queensland Department of Agriculture and the Council are paying particular attention to means of controlling the incidence of a newly identified disease which affects the fertility of sheep and has assumed threatening proportions in recent years in Western Australia and, to a lesser extent, in South Australia and Victoria.

The Council is also conducting research in problems associated with natural pastures and the establishment and management of sown pastures. Studies are being made in the control of weeds; a co-ordinating committee on weed problems has been established in each state. Other investigations presently under way concern insect control, soil content, soil conservation and soil fertility, food preservation and shipments, irrigation and special problems encountered in producing certain agricultural and livestock products, including butter, sugar, tobacco and flax.

The individual states also conduct research in rural problems through their respective agricultural departments. The state departments of agriculture have established county centres, experimental farms and special stations for investigation and experiment. Current research projects concern the development of new varieties of grains, vegetables and fruits, the improvement of pastures, the use of fertilizers, the improvement of breeds, the better feeding of livestock, the control of weeds and of animal and crop diseases and insects, the conservation of soil, the storage and preservation of fruit and other matters relating to marketing and agricultural economics.

Agricultural extension services. Although there is no rigid line of demarcation between the activities of the Council for Scientific and Industrial Research and those of the other organizations, the state departments of agriculture, in general, are not concerned with research to the same extent as the Council, since they are primarily responsible for the more practical duties of inspection and extension service. Educational and extension services are provided by means of agricultural competitions, personal visits, radio broadcasts, publications and postal communications. During the war these services were curtailed because of transfers of staff to war-time duties, but many of the pre-war services have since been restored, and further expansion is envisaged.

Agricultural education. Institutions for agricultural education have been created in each of the states; they are generally administered by the state department of agriculture or education. Three levels of agricultural education are usually provided: a two-year course in a farm school, especially adapted to the needs of farmers' sons between thirteen and sixteen years of age; a three-year, more advanced course, generally given in an agricultural college; and a four-year course at the university level, which leads to the degree of Bachelor of Science in agriculture.

In addition, training courses for former servicemen have been arranged in conjunction with the Commonwealth Reconstruction Scheme, under the Department of Post-War Reconstruction, and agricultural training for former servicemen is also undertaken on suitable farms.

Financial assistance. Financial aid is given to agricultural and livestock producers in the form of loans and subsidies. Financial assistance by the Commonwealth Government is usually provided under specific legislation, such as the Tractor Bounty Act of 1939, the Wine Export Bounty Act of 1939 to 1944, the Raw Cotton Bounty Act of 1934, the Primary Producers Relief (Superphosphate) Act of 1943, the Dairying Industry Assistance Act of 1943 and the Wheat Subsidy Act. The amount paid by the Commonwealth Government for bounty, relief and assistance during the period from 1931 to 1945, inclusive, was more than £A 55 million.[14]

---

[14] *Official Year Book of the Commonwealth of Australia, 1944-45,* page 847. Figure is exclusive of loans to states to alleviate hardships suffered by primary producers in consequence of drought.

Financial assistance is also provided by agreement between the Commonwealth and the state governments. For instance, under a five-year plan to increase the efficiency of the dairy industry, the Commonwealth Government is to make a grant of £A 250,000 a year for five years, to assist the dairy industry in meeting the demand for dairy products at reasonable prices.[15] The plan includes pasture improvement, feeding demonstrations on dairy farms, publicity, dairy farm competitions and record keeping for graded herds.

Rural banking facilities are available in each state, and loans are granted to promote the occupation, cultivation and improvement of agricultural lands. The loans are granted in the several states under differing conditions. In New South Wales, for example, a farm mechanization scheme was introduced in 1943 to increase dairy production. Under its provisions, loans are to be granted for the purpose of purchasing machinery and for establishing co-operative societies. Since its inception, operations under the scheme have affected nearly 150,000 acres.

In a report of 28 August 1944 by the Rural Reconstruction Commission, *Financial and Economic Reconstruction of Farmers*, it was suggested that government-sponsored financial relations with settlers should be administered through a single organization in each state. It recommended an agricultural and livestock bank, to provide normal rural banking facilities and reconstruction services, and a farm adjustment board, associated with the bank, to be charged with responsibility for decisions connected with the operations of the reconstruction service.

B. INDUSTRIAL DEVELOPMENT

1. *Manufacturing industries*

Industrial expansion in Australia, which had begun during the prewar period, was accelerated by war-time demands. Important industries, such as aircraft, shipbuilding, metal working and food processing, were created or greatly developed during the period between 1939 and 1945. Australia emerged from the war with a substantially increased industrial potential.

The post-war years witnessed the further development of secondary industries. In the year ended 30 June 1948, the output of Australian factories, valued at £A 1,210 million, constituted a record. It represented an increase of nearly 20 per cent over the preceding year and was considerably more than double the £A 500.4 million in the year ended 30 June 1939. The number of factories increased to 37,380—7.5 per cent above the preceding year and 39 per cent above the pre-war figure.

---

[15] Australia, Department of Commerce and Agriculture, *News Bulletin*, 20 November 1948.

Employment in manufacturing industries[16] averaged nearly 850,000—an increase of 5 per cent and 50 per cent, respectively, over that of the years ending 30 June 1947 and 1939.[17]

At the end of 1947, the Commonwealth Division for Industrial Development estimated that £A 98 million had been invested or proposed for purposes of industrial development by established manufacturers. This figure was exclusive of investment by new companies, which was estimated at £A 50 million in June 1948.[18] The total investment involved in the expansion of manufacturing industries was thus £A 148 million. The Division further estimated that contemplated expansion programmes and new projects for the six months ending December 1948 involved a total capacity outlay of £A 30 million.[19]

Products of new factories are expected to include industrial chemicals, paints and pigments, pharmaceutical goods, refined oil products, medical equipment, assembled motor vehicles, internal combustion engines, fractional horse-power motors, paper, textiles and carpets.

Part of the investment came from overseas; it is Commonwealth policy to invite oversea industrialists to invest in Australian industries. For this purpose the Division for Industrial Development is empowered to organize visits of oversea experts who are interested in developing secondary industry in Australia. In 1946, the Commonwealth Government signed an agreement with the United Kingdom to eliminate double taxation of income in order to encourage the flow of British capital to Australia. The Prime Minister of Australia announced that between the end of the war and June 1948, oversea interests had participated in 226 new manufacturing projects.[20]

Investigation and study. The Commonwealth Government is supporting an extensive programme of research in manufacturing industry, designed to increase the volume and diversity of production. The Council for Scientific and Industrial Research has undertaken investigations of many aspects of secondary industry, including a study of Australia's deficiency in organic chemicals. As a consequence of this investigation, a plant was established to make the country self-sufficient in potassium fertilizer. The Council also studied a project of a Canadian firm to establish alumina and electrolytic plants, and a British scheme to produce cuprammonium and acetate filaments.

Research for the purpose of providing adequate information to manufacturers is also performed by state organizations. The information covers such matters as oversea technical and industrial developments, new processes, new materials, new types of plant and the establishment of new industries in both metropolitan and rural areas. The service has proved very helpful to manufacturers, who presented many inquiries to the state organizations. In 1947, for instance, the Secondary Industry Division of New South Wales handled 600 special inquiries dealing with all sizes of enterprise.

---

[16] Including working proprietors.

[17] Commonwealth Bureau of Census and Statistics, *Quarterly Summary of Australian Statistics,* December 1948.

[18] *Melbourne Argus,* 18 June 1948

[19] Australia, Department of Commerce and Agriculture, *News Bulletin,* 25 June 1949.

[20] *Ibid.,* 16 April 1949.

Other assistance. Financial assistance in various forms is provided to manufacturers by the states. In Western Australia, under the provisions of the Industries Assistance Act, 1915 to 1931, loans are made to industrialists, and repayment of advances by financial institutions is guaranteed. In South Australia and Victoria, similar legislation is in force. New South Wales encouraged prospecting and the development of new mineral deposits by making £A 10,000 available for 1947 to repay prospectors for half the cost of work done on approved sites. Under the Industries Establishment Act, 1946 to 1947, the government of New South Wales is also empowered to assist new industrial activities by acquiring and disposing of land for factory sites, constructing factory buildings and providing grants or loans.

In some states, measures were taken to help industrialists who experienced difficulty in securing suitable land on reasonable terms. Western Australia enacted the Resumption of Land Act, and established a committee to recover land for industrial purposes Under this act the Minister of Lands may designate crown-lands to be used for the purposes of the act, and the Governor may, where appropriate, recover land required by an applicant for the establishment of industry. In New South Wales, similar provisions were enacted to acquire land for mining purposes.

Industrial decentralization. Owing to many factors, including the location of natural resources, Australian secondary industries are concentrated in a few areas. The greatest concentration of factories occurs in New South Wales and Victoria, which have more than 70 per cent of all factories in the country. In 1947, New South Wales and Victoria had 13,960 and 10,950 factories, respectively, of the total of 34,770 in all Australia.

This concentration has been recognized as socially and strategically undesirable. It is the policy of the Commonwealth and the state governments to encourage the establishment of industrial activities in rural areas—a tendency which became apparent prior to the war. To ensure co-ordinated policy for industrial development between the Commonwealth and the states, the Division for Industrial Development was charged with implementing decentralization policy during the post-war period.

Processing industries which utilize local materials advantageously in country towns contributed a great deal to decentralization. Since 1933, the government of Victoria has made subsidies and grants to manufacturers for decentralization purposes. During the war, the establishment of new factories contributed to industrial decentralization, since more than 70 per cent of the new industry was located away from existing industrial centres and nearer to supplies of raw material and labour. In 1943, over fifty textile plants were installed in rural areas as a result of co-operation between the Commonwealth and Victoria.

Several private enterprises have also followed a decentralization policy. Following the establishment of steel plants in Whyalla in South Australia, the population of that community increased eightfold in fewer than five years. It is expected that the project will enable Whyalla to become a new industrial centre.

Of the thirty-two war-time factories reconverted by private industry, twenty are in rural areas. As a result of the lease or sale of these war plants some 221 new enterprises covering over seventy-two industrial activities were established in rural and less industrialized areas.[21]

2. *Iron and steel*

The iron and steel industry of Australia is based on private enterprise. Although in the past governmental assistance contributed to its rapid growth, the Commonwealth and state governments do not own or operate, or assume major initiative in its development The industry is now considered capable of assuming a strong competitive position.

The only project sponsored by governmental authority is in Western Australia. In spite of its iron deposits, Western Australia lacked iron and steel plants, largely because of the absence of coking coal. However, after extensive investigation of the abundant forest resources, the state government established a plant to produce 10,000 tons of charcoal iron a year, as well as various by-products of wood distillation; an iron industry was thereby initiated on a limited scale.

Aside from this venture, a private firm with plants in Newcastle, Port Kembla and Whyalla operates the entire industry and is responsible for the total iron and steel production of Australia Because of the importance of the industry in the development of manufactures, a brief account of its recent expansion under private auspices is included here.

In 1939, 1.1 million tons of pig-iron and 1.2 million tons of steel and castings were produced. During the war, higher production was recorded; in 1942, pig-iron output was 1.6 million tons and steel and castings amounted to 1.7 million tons—the war-time peak. The expansion of the steel by-product industry made an important contribution towards fulfilling chemical requirements during the war years. Another significant phase of war-time expansion was the production of nearly all the ferro-alloys necessary for the manufacture of alloy steel. In the post-war period iron and steel production declined, compared with that of 1942, but remained above the pre-war level.

---

[21] Australia, Division for Industrial Development, *A Brief Review of Australia's Manufacturing Economy in the Post-War Period* (mimeographed).

Plans of the firm for the post-war years include the expansion of the Port Kembla plant and the establishment of fully equipped steel works at Whyalla. The former project involves a new tin-plate mill and blast furnaces, to cost £A 20 million within ten years.[22] The latter project includes coke ovens, open hearth facilities and rolling mills in Whyalla, where a blast furnace was established in 1938 with a capacity of almost 300,000 tons.[23]

C. Power

Power resources are a basic consideration in the development of Australian manufacturing industry; although both coal and electricity were sufficient for pre-war needs, coal deposits and hydro-electric resources are not evenly distributed throughout the country.

High-grade coal is concentrated in two states, New South Wales and Queensland, and hydro-electric resources are in the eastern highlands and Tasmania. South Australia and Western Australia have the lowest power potential. This distribution of water power and coal constitutes a major difficulty in industrial decentralization.

Australia and New Guinea together have estimated hydro-electric resources of about 24 million horse-power; about 4 million horse-power is located in Australia, and about 20 million horse-power in New Guinea, where large-scale exploitation will become possible only after general development takes place. The hydro-electric resources in Australia proper are deemed sufficient for long-term needs and for a much more intensive development of manufacture.

Industrial development during the war increased the demand for coal and electricity and tended to outstrip existing facilities for their production. As a result, the power supply situation constituted a bottle-neck in Australian economic development. During the first two post-war years, the expansion of industry further increased the demand for power; the coal shortage was qualified as "very grave" by the Minister for Defence and Post-war Reconstruction.[24] The shortage of power emphasized the need for developing available sources of coal and electricity.

1. *Electric energy*

Power generating facilities in Australia are almost entirely controlled by the state governments or the municipal authorities. The state electricity authorities are responsible for power development, power transmission and the improvement of distribution within their respective states. The Commonwealth, however, is responsible for works considered vital to national defence—for example, the Snowy River diversion project.

---

[22] Australia, Department of Information, *Weekly Newsletter*, 14 June 1948

[23] *Sydney Morning Herald*, 4 June 1948.

[24] Australia, *Parliamentary Debates*, 1946-47, page 131.

After investigation, the Commonwealth of Australia established a commission to undertake the Snowy River diversion project, the largest venture in public works in Australia.[25]

Work has begun on the project, which is intended to harness practically all the headwaters of the Snowy River and nearly half its total volume, and to divert its water through tunnels into the Murrumbidgee and the Murray Rivers. It is planned to build sixteen power stations underground and to construct seven large dams and 500 miles of water channels. The installed capacity of the power stations would be over 1.7 million kilowatts—almost as much as the entire present capacity of Australia—and the dams would impound 1.8 million acre-feet of water for irrigation.

The estimated cost of the project will be between £A 170 million and £A 200 million, and it will require about twenty-five years for completion. It is expected that in eight to ten years after the work is begun, 600,000 acre-feet of water and 400,000 kilowatts of power will become available.[26] The resultant cost of distributing power in New South Wales and Victoria is estimated at 50 per cent of the present cost of supplying Melbourne and Sydney. Costs could be further reduced to new industries in inland towns near the source of supply.

It is estimated that the power output would represent the equivalent of 4 million tons of coal, shortage of which is a major obstacle to industrial development and decentralization.

New South Wales. The total capacity of the present generating plants in New South Wales is approximately 812,000 kilowatts—752,000 kilowatts of steam, 33,500 kilowatts of hydro-electric power and 26,500 kilowatts in miscellaneous generating units. Generating plants to be installed within the next few years comprise more than 400,000 kilowatts in steam turbo-alternators and associated equipment. In addition, establishment of a major power station in the coal-fields is being considered; new mines would be opened to supply coal suitable for steam, although of too low a quality to justify transportation to manufacturing centres.

Further plans are in hand for the installation of hydro-electric generating plants in conjunction with the raising of the Hume weir on the Murray River. Major projects associated with the Clarence and Shoalhaven Rivers are also being examined.

---

[25] *The New York Times*, 6 June 1949.

[26] Australia, Department of Commerce and Agriculture, *News Bulletin*, 25 June 1949.

The Electricity Authority of New South Wales is placing in operation a plan to grant financial assistance to suppliers, in order to furnish electricity to rural districts. The plan envisages electricity for some 24,000 farmers and 10,000 other consumers within a period of ten years, at an estimated capital expenditure of £A 6 million. The subsidy is to consist of ten annual payments, based on the estimated capital cost of the project. Subsidies are not applicable to any part of the estimated capital expenditure that exceeds an average of £A 250 per consumer or to any expenditure in excess of £A 300 required to serve any individual consumer.

Victoria. Electric development plans of Victoria provide for the completion of construction at Kiewa and Newport and for a new plant at Yallourn.

In July 1948 the Parliament approved a proposal of the State Electricity Commission of Victoria for a hydro-electric project on the Kiewa River, which would have a generating capacity of 289,000 kilowatts and would cost £A 25,270,000.[27]

Construction is under way on a project to install generating capacity of 90,000 kilowatts at Newport.

In 1946 the State Electricity Commission recommended an increase of 125,000 kilowatts in the installed capacity of the Yallourn generating station—to 300,000 kilowatts. The plan provides for additional installation, including replacement of six 12,500 kilowatt turbo-generator sets.

Queensland. A plan for developing electrical energy, which includes the construction of a new generating plant, has been undertaken in Queensland. A loan amounting to £A 1,604,000 was approved by the Commonwealth Loan Council for the new project.[28]

In order to assist the development of rural electricity, Queensland approved a subsidy amounting to one-third the cost of rural extension and one-half the cost of electrical undertakings in isolated areas.

South Australia. In the past, the demand for electricity in South Australia has increased at the rate of about 10 per cent each year. The Electricity Trust of the state has made five-year and, where necessary, ten-year, plans on the basis of this increased demand. Among other projects, the plans entail expansion of the existing power station at Osborne or construction of a new power station in the northern part of the state.

Western Australia. A development project known as the "South-West National Power Scheme" has been approved by the Parliament of Western Australia. The project involves the erection of three new generating sets of 2,500 kilowatt capacity each at the Collie power station and a generating station at Bunbury of 10,000 kilowatts, together with the necessary transmission lines and distribution mains. The plan includes purchase by the state of the existing Collie private power station and the conversion of two existing 2,500 kilowatt sets from 40 cycles to 50 cycles.

---

[27] State Electricity Commission of Victoria, *Twenty-Ninth Annual Report Covering the Financial Year Ended 30th June, 1948* (Melbourne: J. J. Gourley).

[28] *Report of the Co-ordinator-General of Public Works, Queensland, for Year Ended 30th June, 1946, and Estimates for the Year Ending 30th June, 1947* (Brisbane: A. H. Tucker, 1946), page 11.

The erection, purchase and conversion of generating plants, transmission lines and other facilities for power distribution will require an estimated capital of £A 2,016,000 to £A 2,156,000.[29]

Tasmania. Work undertaken by the Tasmanian Hydro-Electric Commission includes the construction of Clark dam at Butler's Gorge on the Derwent River. Construction is under way on the dam, which will be 200 feet high, and will hold 243,200 acre-feet, or 66,000 million gallons of water.[30] A power station is to be constructed at the foot of the dam to utilize the energy of the water. The main wall of the dam is expected to be completed in 1949 but construction of the power station may be delayed because of shortages of materials.

Parliamentary authority has been given for the construction of a power station which will utilize the waters of the South Esk River. The estimated cost of this project is £A 1.8 million; the installed capacity will be 60,000 horse-power, with an average capacity of 36,000 horse-power.

A project to use the waters of the Nive River and its tributaries is also under investigation. A dam is to be constructed near Bronte to provide motive power for the operation of a power station; this is expected to have an installed capacity of approximately 135,000 horse-power and an average capacity of 66,000 horse-power. The cost of the undertaking is estimated at £A 4.5 million.

2. *Coal*

In 1939 Australian production of bituminous coal and lignite amounted to about 17.2 million tons. To meet increased demand during the war, output rose to 18.7 million tons in 1944. It increased further in the post-war years—to 21 million tons in 1947 and 21.8 million tons in 1948.[31]

Bituminous deposits, which occur chiefly in New South Wales, are the most important and the most extensively developed. New South Wales produces about 80 per cent of the total bituminous output of Australia. The principal coal-fields of the state are situated at Newcastle, Bulli and Lithgow. Lignite is produced mainly in Victoria. In 1948, production was more than 6.7 million tons, procured principally from the Government's open-cut mine at Yallourn, which supplies the state power house and briquetting plant. Bituminous and lignite are also produced in Queensland. Coal production in the other states is much smaller: Tasmania has an annual production of under 100,000 tons in the St. Mary district; the Collie coal-field in Western Australia produces just over half a million tons a year; and the mine in South Australia, at Leigh Creek, has a very limited output.

---

[29] Western Australia, *Report of the Electricity Advisory Committee on the South-West National Scheme* (Perth: Robert H. Miller, 1945), pages 9 and 10.

[30] Tasmania, Hydro-Electric Commission, *Power* (Hobart: Mercury Press, 1946).

[31] Statistical Office of the United Nations; figures for calendar years, based on monthly averages.

A joint coal board, representing the Commonwealth and New South Wales, has been established to improve coal-mining techniques and working conditions. The Board plans to stimulate coal production by providing subsidies for the coal-fields. Under the plan, the Board will pay each local coal governing body one penny for every ton of coal produced in its area. In March 1948 the Board decided to make a first payment of £A 48,000, from its revenue, to the governing bodies of the three main coal-fields in the state.[32]

New South Wales has also developed a plan to enlarge the state-owned coal-mine at Lithgow. It is hoped to increase its output of 1,500 tons a day to more than 4,000 tons daily, within five years. The present daily output of the largest mine—Burwood, near Newcastle—is 4,000 tons.[33]

In 1946, the Electricity Commission of Victoria initiated a plan to develop the state's lignite resources for briquette manufacture. The project would add an open-cut mine and two briquette factories with a combined annual capacity of 1.3 million tons of briquettes to the existing plant in Gippsland, south of Morwell. The factories would involve an estimated capital investment of £A 18.9 million.[34]

The Queensland government and a foreign corporation signed an agreement in December 1947 for the development of the Blair Athol open-cut coal-fields. The agreement provides for an investment of £18 million of British capital for developing the deposits and includes improvement in transportation and harbour facilities. It is expected that upon the completion of the project, 3.5 million tons of coal will be produced annually.[35]

The joint coal board representing the Commonwealth and Victoria announced a plan for mechanizing coal production which would increase output by 50 per cent in three years. An over-all increase of 6.6 million tons of coal a year, exclusive of open-cut production, is expected by the end of 1952.[36]

---

[32] Australia, Department of Commerce and Agriculture, *News Bulletin*, 6 March 1948.

[33] *Sydney Morning Herald*, 7 May 1948.

[34] State Electricity Commission of Victoria, *Twenty-Ninth Annual Report Covering the Financial Year Ended 30th June, 1948* (Melbourne: J. J. Gourley).

[35] Australia, Department of Commerce and Agriculture, *News Bulletin*, No. 494.

[36] *Ibid., News Bulletin*, 6 March 1949.

D. HOUSING

The Housing Commission of the Commonwealth Department of Post-War Reconstruction reported in October 1943 that housing accommodations in large areas of Australia were wholly inadequate. The unsatisfactory character of pre-war housing was further accentuated by restrictions on building imposed during war-time.

Although the Commonwealth had not assumed responsibility for housing before the war, provision on a sufficiently large scale of well-equipped high-standard houses at reasonable prices appeared beyond the capacity of the private building industry, and the Government undertook an active part in housing during the post-war years.

Under the Commonwealth and State Housing Agreement Act of 1945, the Commonwealth and the state governments co-operate in a plan to provide houses for lease or for sale to families at prices within their means.

To fulfil the purposes of the act, funds are provided by means of loans by the Commonwealth for expenditure by the states. Such loans, with interest, are repayable over a period of fifty-three years. An important feature of the agreement is a system of rental rebates, based on the principle that families earning the minimum base wage need not pay more than one-fifth of their income in rent, regardless of the rental value of the dwelling. The Commonwealth pays 60 per cent of the loss occasioned by the rental rebate system, and 40 per cent is borne by the state. For the financial year 1949, the Loan Council approved a borrowing programme of £A 14 million to be used by the Commonwealth Government for advances to the states under the Commonwealth and State Housing Agreement Act.[37]

Housing construction has been accelerated since the war: 15,380 units were completed under public and private auspices in 1946; 32,610 in 1947; and 43,460 in 1948.[38] It is estimated that about 56,000 units will be built throughout Australia in 1949.[39]

The individual state parliaments have also enacted legislation to provide financial assistance for housing. In Victoria, the Co-operative Housing Societies Act of 1946 provides that the state treasurer may guarantee the repayment of loans for housing purposes. The other states have empowered their respective housing authorities to make advances to eligible applicants for the purpose of erecting, enlarging and altering dwellings.

Conditions under which advances are made vary among the states.

---

[37] Australia, Prime Minister and Treasurer, *Budget Speech, 1948-49,* 8 September 1948 (Canberra).

[38] Commonwealth Bureau of Census and Statistics, *Quarterly Summary of Australian Statistics,* December 1948.

[39] Statement of Commonwealth Director of Housing, Australia, Department of Commerce and Agriculture, *News Bulletin,* 30 April 1949.

For instance, in South Australia the Advances to Settlers Act, 1930 to 1944, authorized the state bank to make loans not exceeding £A 1,000 to primary producers for housing purposes and under the Advances for Homes Act, 1928 to 1944, a maximum loan of £A 1,000 may be granted to persons earning not more than £A 600 a year, for the purpose of constructing, purchasing or enlarging a dwelling house or discharging an existing mortgage. Both kinds of loan are payable over a period to be agreed upon, not exceeding forty-two years in the case of a dwelling of brick, stone or concrete, and not more than two years in the case of frame dwellings.

In Tasmania, the Homes Act of 1935, with amendments, empowers the Agricultural Bank of Tasmania to advance a maximum of 90 per cent of the capital cost of house and land, to enable eligible persons to purchase land and erect dwellings or to erect dwellings on their own allotments. An eligible person is defined by the act as married, about to be married or with dependants for whom it is necessary to provide a home.

In addition to providing financial assistance, the state housing authorities are empowered to build houses for sale or lease. In New South Wales, the State Housing Commission reported considerable success in the home building programme after the end of the war. At 30 June 1947, the state government's over-all construction programme was responsible for the completion of 7,476 dwellings; 5,150 were under construction, and it was anticipated that work would be commenced on 3,454 additional houses at an early date—a total of 16,080 dwellings. Apart from projects in the Sydney, Newcastle and Wollongong Port Kembla areas, allocations of home building funds were made to some eighty rural towns in New South Wales. In the rural planning, particular regard was paid to the policy of industrial decentralization.

In 1945 a State Housing Commission was established in Queensland to deal with the development of post-war housing. The Queensland Housing Act of 1945 enabled the housing authority to acquire land for dwellings and to construct dwellings. In view of the urgent need for housing, provision was made in the 1947 programme for an expenditure of £A 1,673,000, under the Commonwealth and State Housing Agreement Act, for housing for rental and for £A 813,610, under the State Housing Act of 1945, for home-purchase projects.

The South Australian Housing Trust planned to build 1,200 houses a year, including houses for rent and for sale in both the metropolitan area and the country.

The Agricultural Bank of Tasmania acts as the State Housing Authority. The principal activities of the Bank with regard to housing are concerned at present with the implementation of the Commonwealth and State Housing Scheme,[40] although a number of dwellings are also being built by individual owners from funds provided under the Homes Act, mentioned above.

---

[40] Under the Commonwealth and State Housing Agreement Act.

The programme of the Commonwealth and State Housing Scheme for 1948 provides for the construction of approximately 700 houses in Tasmania. It is planned to continue the programme at a progressively increasing rate until the housing shortage has been completely relieved —in five years or more. It is expected that thereafter the government of Tasmania will be required to provide approximately 300 to 400 houses a year.

E. PUBLIC WORKS

The basic objective of Australian post-war economic policy is full employment. It is planned to accomplish this by means of banking and fiscal policy, price stabilization, public works and other measures, in the belief that sufficient public investment at critical times and in strategic places is an effective means of combating unemployment and controlling business cycles.

Planning of public works under Commonwealth supervision was inaugurated during the war, when the Commonwealth Government appointed a Co-ordinator-General to the Loan Council, to examine the work to be undertaken by the various authorities in the light of the availability of labour and materials and the urgency and importance of the plans submitted by the several states. The Loan Council is empowered to raise necessary funds for projects that have been approved by the Co-ordinator-General. Loans have been the customary method of financing major public investments in Australia.

In anticipation of the post-war period, the Commonwealth Government required that a reserve of fully planned public projects be held in readiness for immediate implementation whenever the peace-time level of economic activity showed signs of falling. The National Works Council was subsequently established to carry out planning policy for future public works

The reserve of public works covers all undertakings, including defence projects, however financed. Detailed work plans are prepared by the Commonwealth and state governments, examined by the Co-ordinator-General and submitted to the National Works Council for final decision. The approved projects, which are planned with full consideration of national resources, constitute a pool of public works from which individual projects are executed at times approved by the Council. As work is advanced from the reserve to the programme for a given year, additional projects are added to the reserve. Loans necessary for executing approved projects are to be raised by the Commonwealth Government and advanced to the states. The reserve of projects in 1946 is shown below.

RESERVE OF PUBLIC WORKS PROJECTS,[a] 1946
(In thousands of Australian pounds)

Government	Priority[b]			Total
	A	*B*	*C*	
Commonwealth	21,789	14,215	2,057	38,061
New South Wales	20,063	23,635	3,847	53,545
Victoria	25,582	15,271	5,543	46,396
Queensland	14,893	9,707	619	25,219
South Australia	9,377	6,005	2,681	18,063
Western Australia	5,636	4,145	1,089	10,870
Tasmania	2,040	1,438	657	4,135
TOTAL	105,380	74,416	16,493	196,289
Commitments connected with above	..	..	..	51,932
GRAND TOTAL				248,221

Source: National Works Council, *Fourth Report, Co-ordination of Post-War Public Works*, page 2.
.. Not available.
[a] Including government building but not government housing.
[b] Priorities adopted by Co-ordinator-General and state co-ordinators to indicate relative urgency of various projects in the programme.

This reserve contains projects of Commonwealth and state departments, commissions and boards, and includes plans for railways, water conservation and irrigation, roads, agriculture, forestry, education and public health. Its general character is indicated by the analysis, below, of the "A" priority programme planned in 1945.

RESERVE OF "A" PRIORITY PUBLIC WORKS PROJECTS, 1945
(In millions of Australian pounds)

Type of work	*Value*
Buildings	29.0
Roads and streets	11.7
Water and sewerage mains and pipes	11.5
Dams, reservoirs and weirs	10.2
Railway tracks	8.8
Fixed plant[a]	8.8
Transport rolling stock	5.9
Forestry plantations	4.3
Aerodrome runways	3.8
Movable plant	3.6
Dredging and shore work	3.5
Bridges	2.8
Civil aviation lines	2.7
Wharves and berths	2.3
Water and sewerage canals and channels	2.2
Land improvement	1.1
TOTAL	121.1[b]

Source: International Labour Organisation, *Public Investment and Full Employment* (Montreal, 1946), page 221.
[a] Represents only part of the total fixed plant requirement since in many cases such costs have been included with the cost of buildings, dams and other structures.
[b] Including £A 8.9 million for commitments connected with above estimates, for which details were not reported.

The Loan Council approved a total loan of £A 45,297,000 for the public works programme of 1947; of this total, £A 12,565,000 was to be used by the Commonwealth, and the balance of £A 32,732,000 was to be advanced to the states, subject to repayment over a period of fifty-three years.[41] The Loan Council authorized borrowing programmes aggregating £A 63 million for the financial year 1948,[42] and £A 70 million for 1949 to finance the public work and housing programmes of the Commonwealth and state governments.[43]

F. FOREST CONSERVATION AND DEVELOPMENT

The preservation and development of forests in the Australian states are the responsibility of the respective state governments. The Commonwealth Government administers the forests in the territories—Northern Territory, Papua and New Guinea.

In addition to general measures for forestry improvement, involving inspection, maintenance and research, which are common to all the states, specific programmes for forestry development have been planned by some of the states.

1. *New South Wales*

The forestry programme of New South Wales includes reforestation and the care, balanced development and more efficient use of indigenous forests.

An expanded reforestation programme provides for softwood reforestation by extending existing planted areas of hoop pine and exotic pines. The programme for care of indigenous forests provides for wider and more intensive treatment of standing growth of hardwood and cypress pine, including planting and thinning and other treatment.

Plans for improved forestry economics and utilization call for cooperation among the state government, the Commonwealth price control organization and timber trade organizations, regarding questions of pricing, transport costs and stumpage. It is planned to bring into production many areas of forest which are at present economically inaccessible and to promote the more efficient use of forests, by utilizing neglected species and logs of small dimension or inferior grade. The general aim of the programme is to secure fuller utilization of forests and to provide an economic basis for more intensive silviculture.

Officers of the Forests Commission of New South Wales who serve on the Regional Development Committee are attempting to achieve balanced development of forestry among the various regions of the state.

---

[41] Commonwealth of Australia, *Prospectus*, 16 June 1947, page 28.

[42] Australia, Prime Minister and Treasurer, *Budget Speech 1947-48*, 19 September 1947 (Canberra).

[43] *Ibid.*, *Budget Speech 1948-49*, 8 September 1948 (Canberra).

Plans which are being made envisage a growing demand for timber resulting from development of irrigation and other projects.

2. *Victoria*

The forestry policy of Victoria is directed, in general, towards the protection, development and rational utilization of indigenous hardwood resources, and the establishment and maintenance of an adequate area of softwood forest. War-time experience has placed special emphasis on action concerned with timber production and utilization, but has not necessitated radical departure from broader aspects of forest policy.

The post-war programme of Victoria consists of a five-year plan for silviculture, afforestation, fire protection and timber utilization. The plan has been approved by the National Works Council. Special loan allocations were made for the work, which will require an estimated force of 4,500 to 5,000 employees. Approved work for the first two-year period of the forestry programme is shown below (in thousands of Australian pounds).[44]

Road construction	1,478.6
Afforestation and establishment of softwood plantations	1,084.0
Silviculture: development, maintenance and regeneration of indigenous hardwood forests	671.7
Building, including quarters for foresters	68.5
Water storage	146.8
Fire protection: fire-breaks, firelines, etc.	320.0
Detection and communication facilities: fire-towers, telephone lines, etc.	20.5
TOTAL	3,790.1

The road construction project is to provide access to the forests and to facilitate the extraction of timber, principally the mountain stands of Alpine ash.

Major afforestation projects include planting some areas in South Gippsland and extending existing plantations in the north-east and Ballarat districts and in areas adjacent to the South Australian border in the south-west portion of Victoria.

In addition to the five-year plan, the Forests Commission of Victoria has adopted a long-range programme to increase the existing 46,470 acres of coniferous plantation to 250,000 acres, over a period of twenty-five years. Work was begun during the planting season of 1946 in the north-eastern district, in the Ballarat, Creswick and Scarsdale districts and in Southern Gippsland.

3. *South Australia*

South Australia has smaller forestry resources than the other states, but a progressive policy of afforestation has been followed during the past sixty-six years, and extensive areas have been planted with softwoods.

---

[44] Australia, Forests Commission of Victoria, *Empire Forests and the War;* statement prepared for the British Empire Forestry Conference, London, 1947 (Melbourne: J. J. Gourley, 1946), page 92.

The Woods and Forests Department of South Australia is responsible for the implementation of the policy. It has prepared a programme to establish 120,000 acres of softwood, chiefly radiata pine, by planting about 3,000 acres a year. Slightly over 100,000 acres of the total have already been planted.

G. DEVELOPMENT AND RECONSTRUCTION OF TERRITORIES

The territorial area, including the Northern Territory, Papua and the mandated territory of New Guinea, is under the direct administration of the Commonwealth Government of Australia.

1. *Northern Territory*

The vast area of the Northern Territory is almost entirely undeveloped and its potentialities are not accurately known. The Council for Scientific and Industrial Research made a reconnaissance survey during 1946 covering soil, pastures, ecology and geology in the area between Darwin and Katherine. A similar survey on the Barkly Tableland was begun in 1947 and continued in 1948. The Council survey of 1946 indicated that limited areas in the region between Darwin and Katherine appeared suited to tropical agriculture, and that an area of several thousand acres in the vicinity of Katherine could be irrigated.

In order to raise the efficiency of the wool-growing industry of the Northern Territory, the Government of Australia is considering proposals that include provision of adequate water supplies, improvement of veterinary services, legislation to prevent overgrazing and soil erosion and investigation of artesian water resources.

To restore the pearl-shell fishing industry, which suffered serious war damage, steps are being taken by the Government to train Australian personnel, and fishing boats are being built in Australia.

Under a proposed plan for the development of meat production in the Northern Territory, the Commonwealth Government would undertake—and would bear the cost of—a project involving the construction of meat plants and roads and a long-term programme for improving the quality of cattle; the United Kingdom would make machinery available and would guarantee purchases.[45]

2. *Papua and New Guinea*

Economic life in Papua and New Guinea was disorganized by the war. Although military roads and airports were constructed, shipping facilities were destroyed, and rubber and copra plantations suffered heavy damage.

---

[45] Australia, Department of Commerce and Agriculture, *News Bulletin*, 7 May 1949.

In July 1945, the Commonwealth Parliament passed the Papua-New Guinea Provincial Administration Act to provide a single administration for the formerly separate territory of Papua and the mandated territory of New Guinea. During 1946 and 1947 the Australian Government appointed an inter-departmental committee to investigate and make recommendations to the Government concerning plans to be followed for the administration of the territories. Several committees were established to deal with the welfare of the indigenous population, social development, economic development and finance.[46]

Shipping facilities were considered a most urgent requirement for rehabilitation. Small ships play a major part in the economic life of Papua and New Guinea because of the long coast lines and the numerous adjacent islands. Practically all small ships in use prior to the war were destroyed, lost, damaged or deteriorated during the war. To meet these needs, the Australian Government has provided 300 tons of shipping, and a number of new vessels are now being constructed.

The Australian-New Guinea Production Control Board is attempting to assist the general rehabilitation of the territories and, in particular, is endeavouring to facilitate and expedite the reoccupation of the copra and rubber plantations. Before the war, 89,000 tons of copra were produced annually, but capacity was reduced by war damage. Although production has begun to increase—present output is about 25,000 tons a year[47]—it is estimated that even after rehabilitation, maximum potential production from existing plantations will not exceed 60,000 tons a year.

Papua and New Guinea have large supplies of many varieties of timber; with proper cutting regulations, a substantial timber industry may be developed for supplying local requirements and for export. Plans have been formulated for reafforestation and other projects, in order to lay the foundation for a long-term timber industry.

On the assumption that agriculture must provide the main basis for their ultimate prosperity, the Department of Agriculture, Stock and Fisheries was reorganized and restaffed to speed recovery of the territories. Undertakings of the Department include the expansion of existing experimental farms and the establishment of new ones, investigation and use of marine resources and the provision of field services, aid in stock breeding and animal husbandry, organized marketing facilities, training centres for indigenous inhabitants and general technical services.

---

[46] Commonwealth of Australia, *Report to the General Assembly of the United Nations on the Administration of the Territory of New Guinea from 1st July 1946 to 30th June 1947* (mimeographed), page 47.

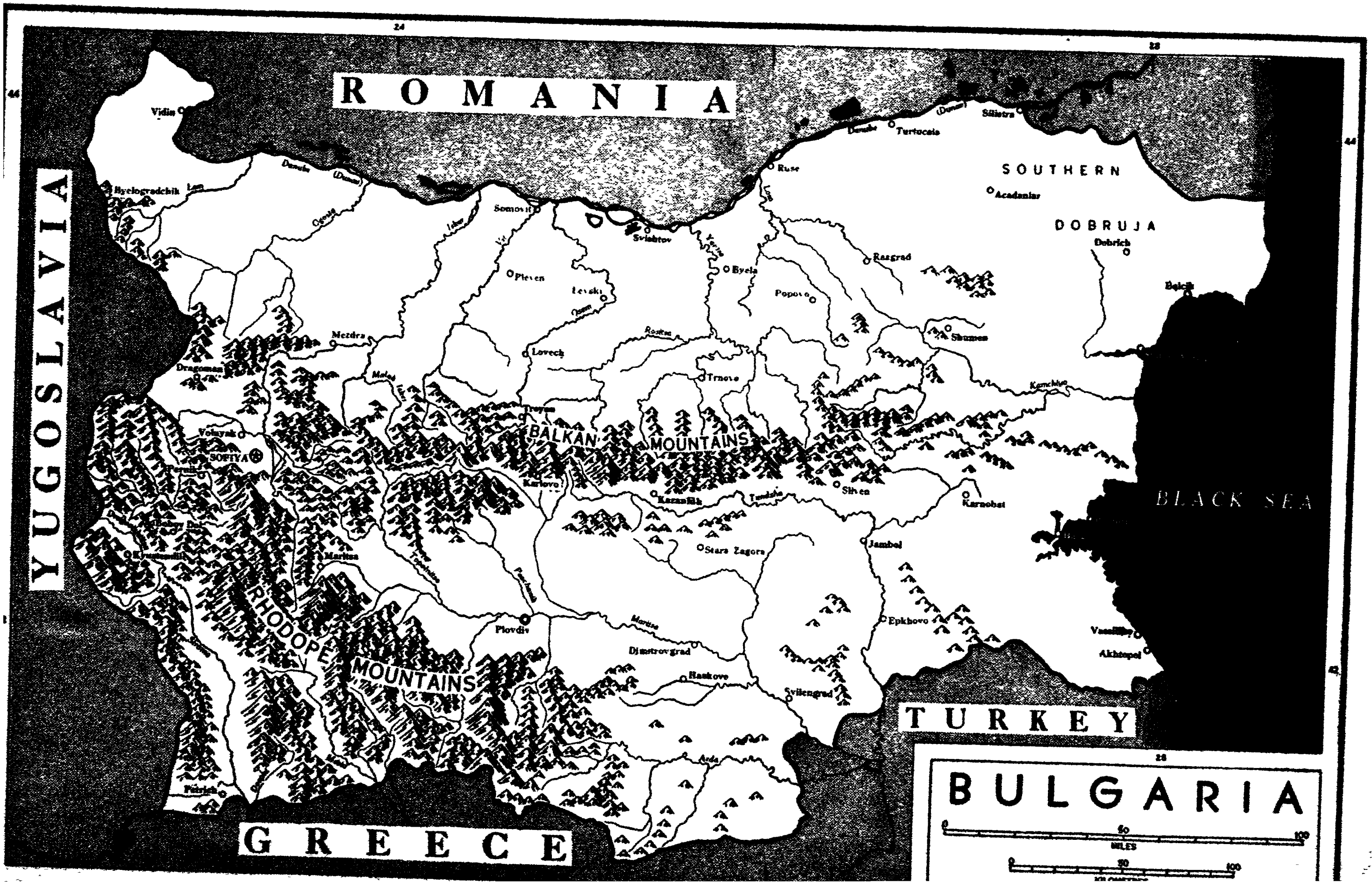
[47] Commonwealth of Australia, *Report to the General Assembly of the United Nations on the Administration of the Territory of New Guinea from 1st July 1947 to 30th June 1948* (mimeographed), page 37.

The Commonwealth's technical and scientific departments and institutions are conducting research work in close collaboration with the administration of the territories. Arrangements have been made to undertake a survey of fishery resources and to investigate certain aspects of the timber supply. Pest control measures have been introduced and further research on this subject is now under way.

BULGARIA

18937.

Government of India
Delhi Polytechnic Library


BULGARIA
MILES
0
50
100
KILOMETERS
0
50
100
ROMANIA
YUGOSLAVIA
GREECE
TURKEY
BLACK SEA
SOUTHERN DOBRUJA
BALKAN MOUNTAINS
RHODOPE MOUNTAINS
Vidin
Byelogradchik
Lom
Danube
(Dunav)
Ogosta
Iskur
Vit
Somovit
Svishtov
Pleven
Levski
Osum
Mezdra
Lovech
Trnovo
Byela
Yantra
Ruse
Lom
Popovo
Razgrad
Turtucaia
Silistra
Acadanlar
Dobrich
Balchik
Shumen
Kamchiya
Rositsa
Troyan
Dragoman
Volnyak
SOFIYA
Pernik
Dupnitsa
Kyustendil
Maritsa
Karlovo
Kazanlik
Tundzha
Sliven
Karnobat
Jambol
Stara Zagora
Plovdiv
Maritsa
Dimitrovgrad
Haskovo
Svilengrad
Epkhovo
Vassiliko
Akhtopol
Arda
Struma
Mesta
Petrich
24
28
44
42

BULGARIA

By most economic indicators, such as per capita income, power consumption and capital equipment, pre-war Bulgaria was one of the least developed of the south-eastern European countries.

Moreover, Bulgarian economic life was severely affected by the Second World War. Real national income in 1945 was 6 per cent below the 1939 level. Between 1945 and 1946, money income increased 17 per cent, but the level of wholesale prices increased 14 per cent, so that in 1946 real income was still 3 per cent below 1939. During this period population increased more than 10 per cent—from 6.3 million in 1939 to 7.0 million in 1946—owing partly to a large natural increase and partly to the incorporation of southern Dobruja. Thus, real per capita income in 1946 was about 12 per cent lower than in 1939. According to official data, industrial production in 1946 was 9 per cent under the 1939 level[1] and agricultural output declined 21 per cent. Total production was 14 per cent below that of 1939.

I. The two-year economic plan for 1947 and 1948[2]

A. General Objectives

The general aim of economic development in Bulgaria, in a phrase often quoted by Bulgarian authorities, is to realize in ten or twenty years what other countries have achieved in a century The principle of over-all economic planning is embodied in the new Bulgarian Constitution: article 10 provides for State direction of the economic life and the economic development of the country by means of a general economic plan.

The Bulgarian economic plan for 1947 and 1948 implemented the Constitution by providing an over-all plan for domestic production, foreign trade, finance, labour and related activities. Experience with an earlier, less elaborate, plan for 1946 served as the basis for framing the economic plan for 1947 and 1948,[3] which was adopted by the Grand

---

[1] Exclusive of the output of electric power, fuel and, especially, ores, which had increased very considerably above 1939 levels.

[2] The plan covered the period from 1 April 1947 to 1 April 1949, according to the text of the law approving the state national economic plan for 1947 and 1948. However, the five-year plan for 1949 to 1953 went into effect 1 January 1949 (*Free Bulgaria,* 15 January 1949).

[3] Statement by the President of the Supreme Economic Council before the Grand National Assembly.

National Assembly at its fifty-seventh session on 25 March 1947 and was promulgated on 24 April 1947. It established targets and programmes for various fields of economic activity.

Under the two-year economic plan, production was scheduled to equal that of 1939 at an early stage and to increase significantly thereafter. In 1947, all major branches of economic activity were to show substantial total and per capita increases over 1939, except that livestock production was not expected to exceed the 1939 level until 1948.

Branches of agricultural production which were mentioned in the plan as having fallen to particularly low levels in 1946, compared with 1939, include livestock, 41 per cent below 1939; meat production, 46 per cent; milk, 43 per cent; cheese, 73 per cent; and eggs, 46 per cent below 1939. Industrial production levels showed the following declines compared with 1939: leather, 49 per cent; soap, 33 per cent; vegetable oils, 79 per cent; sugar products, 67 per cent; wool, 20 per cent; and silk, 10 per cent below 1939.

The low levels for 1946 were emphasized in the plan, partly to indicate the extent to which production must be made up, and also to demonstrate that though much of the planned expansion over 1946 appeared formidable, it constituted a comparatively small increase above 1939 and was consequently quite feasible. The plan laid stress on the fact that the objectives had been formulated on a realistic basis by competent technicians and experts and should be viewed in relation to 1939, rather than 1946, levels.

The first Bulgarian two-year plan placed considerable emphasis on agricultural as well as industrial development and on the establishment of the prerequisites for industrial development, such as power and transport.

The more general aims of the plan were:

(*a*) To restore and in most sectors exceed the pre-war level of production in agriculture, industry and other branches of the national economy;

(*b*) To increase the industrialization of the country by mobilizing domestic resources and, if possible, short-term foreign credits, in order to create new industries and to enlarge and improve the production of existing industries;

(*c*) To introduce modern technical methods in all fields of production;

(*d*) To increase the supply of fuel and power by opening new coalmines, improving mining equipment and establishing new facilities for the generation and distribution of electric energy;

(*e*) To institute a general, co-ordinated programme of new construction;

(*f*) To lend all possible assistance to the development of agriculture and related activities and to develop co-operative farming;

(*g*) To improve transport;

(*h*) To establish craftsmen's co-operatives and rationalize handicraft production;

(*i*) To improve methods of distribution, eliminate middlemen and fix fair exchange rates between agricultural and industrial production; and

(*j*) To encourage domestic savings, maintain monetary stability and develop a sound credit system.

In the execution of the plan, it was proposed to introduce strict economy, to reduce costs and to improve the quality of production in all fields. Special encouragement and incentives were to be offered to private as well as co-operative enterprises.

B. ADMINISTRATION AND EXECUTION

1. *Distribution of responsibility*

The Supreme Economic Council was primarily responsible for the execution of the plan. The Bulgarian Constitution recognized the importance of the Council and its functions by providing that the President was to have the rank of Minister and a seat in the Government.

Under the direction of the Supreme Economic Council, the following ministries were made responsible for the execution of the two-year plan in their respective fields: the Ministries of Trade, Agriculture, Public Works, Railways (in charge of all transport and postal and telegraph services), Industry, Electrification (in charge of fuel and power) and Social Policy. In addition, the Ministry of Finance and the National Bank were concerned with financing the plan.

The two-year plan outlined objectives for various sectors of the economy and also provided a detailed outline of specific projects for agricultural improvement. It specified the governmental authorities which should bear responsibility for various general or particular tasks and provided that these authorities should formulate detailed plans and proposals to be submitted to the Supreme Economic Council for co-ordination and approval.

For example, the Ministry of Industry, in charge of the industrialization aspects of the plan, was instructed to draw up schedules for all enterprises, on an annual and on a four months' basis. The Ministry was given sole jurisdiction over contracts and orders; no enterprise, whether public, private or co-operative, was permitted to accept instructions from other ministries or departments.

In a number of fields, provision was made for co-operation among departments. In reorganizing the timber and mining industries, for example, the Ministry of Industry was directed to co-operate with the Ministry of Agriculture, and necessary decrees for training industrial labour were to be submitted to the Council of Ministers. The Ministry of Industry was instructed to co-operate with the Ministry of Trade in handling problems of raw materials, supplies, spare parts and similar matters, and with the Ministry of Electrification in overseeing power installations in industrial plants.

The plan provided for strict economy in expenditures for personnel, services and materials and for the elimination of duplication and overlapping. Employment lists were to be scrutinized, and useless and unqualified workers dismissed. The special knowledge and skill of technicians and other workers were to be fully utilized, and labour discipline was to be raised to a high level.

The managers of individual plants were made responsible for achieving output targets, but both managers and labour unions were instructed to co-operate in reaching the objectives. The plan provided that the standards for fair labour conditions established by the Ministry of Public Works were to be observed on all projects.

2. *Financing the plan*

The Supreme Economic Council was instructed to formulate and put into general operation a code that would clearly define the responsibilities—including penal powers—of the agencies which were placed in charge of the planned objectives, and of their suppliers and the institutions which were to finance the projects.

The Ministry of Finance was instructed to appropriate, early in 1947, the necessary funds for public projects and for required statistical and planning services in each of the ministries and territorial divisions. The Bulgarian National Bank was instructed to guarantee bank loans sufficient to finance the construction work anticipated by the plan for 1947 and 1948 and to secure the necessary loans for industrial expansion projects and housing. The National Bank, in consultation with the Supreme Economic Council, and subject to the approval of the Council of Ministers, was also to assist the various ministries in obtaining loans from its subsidiary credit institutions. The plan did not contain further details concerning methods of financing.

3. *Allocation of materials*

The plan provided for the allocation of raw materials which were in short supply and which might become bottle-necks and thereby endanger execution of the plan. Raw materials, especially those on the scarce list, were to be concentrated in the most efficient enterprises, and earlier methods of distribution were modified. The Council of Ministers was empowered to designate inefficient enterprises. Allocations were to be made on the basis of standard consumption of raw materials and auxiliary supplies, per unit of output. Economy was to be enforced in the use of raw materials, and a special department of standards was to investigate the quality of material and products.

All available capital goods, regardless of ownership, were placed at the disposal of the Supreme Economic Council, which was to utilize them according to the needs of the investment programmes of the plan. The Government was given full power to compel private interests to comply with provisions for the execution of the plan.

A special board of distribution was instructed to submit, by 10 April 1947, a list of building materials required for various construction projects and to allocate supplies to the projects. Allocation by the board was to apply to all materials which were listed in administrative circulars of the Supreme Economic Council as being in short supply. Scarce materials specifically mentioned in the plan included cement, concrete, iron, steel sheets, timber and nails.

Plans for transporting building materials to the projects were to be worked out by the Directorate-General of State Railways. The Ministry of Trade was instructed to arrange for the importation of necessary building materials.

C. SPECIFIC OBJECTIVES

The plan established certain quantitative targets of output and productivity, and in addition it provided for projects for technical training and the reorganization of agriculture.

The objectives as originally stated in the law which promulgated the two-year plan appear to have been revised somewhat in the light of actual performance and a re-examination of the feasibility of the proposals. Available information on the quantitative targets is set out below.[4]

The development of manufacturing, fuel production and electric power generation were emphasized in the plan. Although the general level of output in the major sectors of the economy was to be raised to 120 per cent and 144 per cent of 1939 output in 1947 and 1948, respectively, it was proposed that power output in 1948 be raised to 196 per cent of the 1939 level. Targets for fuel and mined ores were also relatively higher, as the table below indicates.

MAJOR PRODUCTION TARGETS OF THE TWO-YEAR PLAN, 1947 AND 1948
COMPARED WITH 1939 AND 1946 PRODUCTION LEVELS

	In millions of leva at 1939 prices[a]				*Index, 1939 = 100*		
Branch	*1939*	*1946*	*Planned, 1947*	*Planned, 1948*	*1946*	*Planned, 1947*	*Planned, 1948*
Agriculture	35,183	28,050	39,655	47,153	80	113	134
Manufacturing	11,122	10,727	15,109	18,611	91	136	167
Power	576	897	970	1,130	156	168	196
Coal	732	1,177	1,509	1,643	160	206	225
Ores	21	126	180	196	600	857	933
TOTAL	47,634	40,977	57,423	68,733	86	120	144

Source: Free Bulgaria, 15 May 1947.

[a] The post-war exchange rate of the leva was approximately US$0.0035. It should be borne in mind, however, that Bulgarian leva converted to United States dollars at this exchange rate give only a very rough idea of relative purchasing power.

---

[4] Since information regarding the revised targets is incomplete, certain discrepancies are unavoidably present in the description given.

1. *Agriculture, forestry and fishing*

Production. In 1946 general agricultural production had fallen 20 per cent below the 1939 level. The aim of the two-year plan was to raise production to 13 per cent above that of 1939 in 1947 and 34 per cent above 1939 in 1948. The planned increase in agricultural production for 1948 was thus roughly one-half as great as the percentage increase planned for manufacturing industry as a whole. However, because of the abnormally low agricultural yield of 1946, the projected percentage increase in agricultural production as measured from the 1946 level was approximately equal to that planned for industrial expansion. The value of agricultural output at constant (1939) prices was to be increased from 35,183 million leva in 1939, to 39,655 million in 1947 and 47,153 million in 1948.

Among agricultural commodities, the production of cereals, which was 19 per cent below 1939 output in 1946, was to be raised to 21 per cent above that of 1939 in 1947, and to 37 per cent above 1939 in 1948. Livestock production, on the other hand, was scheduled to be 21 per cent below 1939 output in 1947—the 1946 figure was 45 per cent below—and to exceed the 1939 level by 16 per cent in 1948.

The targets for livestock, expressed as percentages of the number in 1946, are shown below.[5]

	1947	*1948*
Horned cattle	106	109
Sheep	114	122
Pigs	157	236
Fowl	166	222

The planned crop output per hectare is indicated in the table below. The estimated planned yield for 1948 was close to the average yield in 1939. The 1947 figures show the planned recovery from the abnormally low yields of 1946.

PLANNED AVERAGE CROP YIELDS PER HECTARE, 1947 AND 1948 COMPARED WITH 1939 AND 1946 YIELDS

(In metric tons)

Crop	*1939*	*1946*	*Planned, 1947*	*Planned, 1948*
Wheat	1.37	1.20	1.27	1.37
Rye	1.13	1.04	1.18	1.27
Barley	1.64	1.21	1.40	1.52
Corn	1.39	0.61	1.25	1.35
Rice	3.50	2.00	3.00	3.44
Potatoes	7.77	3.89	6.94	8.10
Tobacco	0.96	0.65	0.95	1.06
Sugar-beets	17.74	7.30	16.14	18.12
Sunflowers	1.00	0.54	1.01	1.16
Cotton	0.23	0.10	0.18	0.21
Grapes	5.44	3.44	4.50	4.85

Source: P. Gruncharov, *Our Agriculture and the State Economic Plan* (State Printing Plant, Sofiya, 1947).

---

[5] Ministry of Information, *Two-Year Economic Plan of Bulgaria* (Sofiya, 1947).

In order to raise crop yields, the plan provided for a considerable increase in the use of tested high-quality seed. Newly established seed production farms were to supply such seed, and ordinary seeds were to be cleaned and disinfected. In the course of the two years, it was planned to increase the area of 16.2 million hectares sown with clean and disinfected seed in 1946 to 24.6 million hectares. Local varieties of sunflower seed were to be replaced by a standard high-yield type to the extent of 62 per cent of the total in 1947 and 82 per cent in 1948.

Deep ploughing in autumn was also emphasized as a measure to improve crop yields. It was intended to apply this innovation to 50 per cent of the suitable area in 1947 and to 60 per cent in 1948. The proportion of autumn ploughing by tractors—more effective in providing deep furrows—was to be increased from one-eighth of the total area in 1946 to one-third in 1947 and to more than one-half in 1948.

It was planned to increase the use of artificial fertilizers from 5,000 tons in 1946 to 50,000 tons in 1947 and to 60,000 tons in 1948. Application of such fertilizers was mentioned particularly in connexion with rice cultivation.

Under the plan, it was proposed to increase unit yields of milk and wool in 1948 in the following proportions: milk per cow was to be raised 71 per cent over the 1946 average; milk per sheep, 30 per cent; and wool per sheep, 50 per cent. The planned increases on co-operatives and State farms were 55 per cent, 33 per cent and 66 per cent, respectively.[6] Realization of these proposed increases would result in an average annual yield per cow of 1,200 kilogrammes of milk on private farms, compared with 2,500 kilogrammes on co-operative and State farms, and an increase in the yield of wool per sheep to 1.8 kilogrammes on private farms, compared with 2.2 kilogrammes for co-operative farms and 3 kilogrammes for State farms.[6]

Productivity was to be further increased by the establishment of 30 State, 1,200 co-operative and 150 municipal livestock farms. A total of 1,380 farms were to be stocked with 20,000 cows, 390,000 sheep, 15,000 pigs and 270,000 fowl. The plan provided that each public livestock farm would build its own silo by June 1947 in order to preserve green fodder.

The plan also provided for competitions, exhibitions and veterinary services to encourage the development of high-grade cattle. Targets for the production of serums, vaccines and bacteriological preparations by bacteriological institutes were established for each of the two years. A specified number of cattle were to be artificially inseminated; a given number of incubators were to be built; 6 million cattle were to be immunized against disease during 1947 and 1948 and almost 2 million cattle were to be disinfected.

---

[6] Law approving the national economic plan for 1947 and 1948.

Special measures were decreed and premiums were granted in order to encourage the fattening of pigs and other livestock. All owners of flour mills, vegetable oil mills, breweries and other food industries—including restaurants—were to raise fixed quotas of pigs. Deliveries of pigs fattened under the quotas were to be made twice a year, on 30 April and 31 December. In addition, 150,000 pigs were to be fattened under contract with the State Bureau for the Exportation of Foodstuffs, and were to be delivered at prices fixed by the Bureau. Cereal foods were not to be fed to pigs.

Land utilization. The total area under cultivation in 1947 and 1948 was to be increased by 1.3 per cent, as comparred with 1939, or from 4.79 million hectares in 1946 to 4.81 million in 1947 and to 4.85 million in 1948. Of the 60,000 additional hectares, 35,000 were to be obtained by means of drainage projects, mainly in the interior and along the Danube River, and 16,000 hectares were to be added by clearing forests.

The sown area for each category of agricultural product and for individual crops was prescribed in detail in the plan. The area for bread cereals and grain for fodder was to be expanded in 1947 but to be reduced in 1948. The temporary increase was necessary to provide livestock fodder to restore the productivity and usefulness of cattle.

In general, the over-all plan provided for the same or slightly smaller areas for cereals and sugar-beets, and greatly expanded areas for commercial and intensively cultivated crops. It was expected that these planned changes in area distribution would raise the value of agricultural output by approximately 10 per cent, even with unchanged yields per hectare.

It was planned to increase the area under rice cultivation from 7,300 hectares in 1946 to 12,000 in 1948, both to provide rice for export and to develop rice as a basic domestic food. The attainment of this goal was dependent on the completion of irrigation projects. A large increase, from 24,600 to 33,900 hectares, was also planned in the area for potatoes, but it was recognized that the availability of seed might be a limiting factor.[7] The 410,000 hectares under grass and pasture were to be enlarged to 530,000 hectares, and the major parts of the increased area devoted to alfalfa and vetch. The area for pulses was to be expanded about 20 per cent, or from 160,000 hectares to 190,000 hectares.

The area planted in oil-seeds was to be extended by 30 per cent, to 270,000 hectares. The largest percentage increases in planted area were planned for sesame, soy-beans, poppies, ground-nuts, castor beans, rapeseed and flax.

The area for cultivating fibres was to be enlarged 46 per cent, to 77,500 hectares, most of it in cotton. The area in tobacco was to be limited to 60,000 hectares, compared with 72,100 hectares in 1946, and attempts were to be made to improve the quality of the tobacco. The sugar-beet area was to remain unchanged. The area for vegetable cultivation was to be expanded by 11,300 hectares to 55,000 hectares, with the aim of developing exports of fresh vegetables, green peppers and tomato paste. The following figures show the planned production for 1948 as percentages of the 1946 output.[8]

---

[7] Seed potatoes were subsequently secured by a trade agreement with Czechoslovakia.

Crop	*Per cent of 1946 output*
Flax-seed for oil	1,713
Alfalfa	1,100
Cotton fibres	510
Rice and potatoes	357
Commercial fodder crops	346
Soy-beans	278
Sugar-beets	243
Sunflowers	216
Corn (maize)	209
Grass fodder	206
Tobacco	174
Fruit	172
Fodder grains	171
Grapes	147
Vegetables	139
Wheat and rye	114

Considerable emphasis was laid on land reform, the organization of co-operative farming and the establishment of stations for farm machinery to further agricultural mechanization and the introduction of improved methods.

The land reform measures included the distribution of approximately 460,000 hectares of land among 150,000 small holders or landless peasants. This area compares with a total cultivated area of 4.9 million hectares in 1948.

The number of co-operative farms was to be extended from 465 with 40,000 members in 1946, to 560 farms in 1947 and 800 in 1948. The cultivated area of these farms was to be increased from 150,000 hectares in 1946 to 250,000 in 1947 and 400,000 in 1948.

Existing co-operative farms were to be improved by the establishment of production plans and labour standards for each farm. Orderly bookkeeping was to be introduced, a training course for farmers and bookkeepers organized and the efficiency of co-operative farm managers encouraged by a special distribution of land. The efficient operation of co-operative farms was also to be increased by regrouping and exchanging farm areas, by building roads and by draining and irrigating 150,000 hectares of co-operative farms during 1947. The emphasis on measures to introduce the co-operative system of farming is indicated by the fact that the yield of co-operative farms was expected to be about 10 per cent above the yield of private farms in 1948.[9]

---

[8] Ministry of Information, *Two-Year Economic Plan of Bulgaria* (Sofiya, 1947).

It was planned to organize thirty stations to furnish farm machinery, including tractors, by 1947 and an additional twenty during 1948; there were twenty such stations in 1946. These stations were to serve the co-operative farms, but were also made responsible for the cultivation and general management of land in adjacent areas. The table below shows the projected increase in the equipment of these stations.

PROJECTED EQUIPMENT FOR TRACTOR STATIONS, 1947 AND 1948
COMPARED WITH 1946 EQUIPMENT
(In number of units)

Item	*1946*	*Planned, 1947*	*Planned, 1948*
Tractors	30	600	1,317
Tractor-driven ploughs	20	900	2,000
Tractor cultivators	—	300	500
Tractor disk harrows	—	300	600
Tractor-driven sowing machines	—	400	1,000
Tractor disk binding machines	—	110	700
Combines	10	20	30
Threshing machines	—	40	240
Trucks	31	50	100

Source: P. Gruncharov, *Our Agriculture and the State Economic Plan* (State Printing Plant, Sofiya, 1947).
— Nil.

Plans for developing water resources, aside from power projects, formed an important part of the agricultural programme. These plans provided for the continuation of work in improving sixty river beds, with a total length of 400 kilometres, in order to prevent flooding and thereby protect 60,000 hectares of land; altering another 135 kilometres of river bed to protect an additional 5,000 hectares; completing the irrigation, by pumping, of 8,200 hectares; beginning the drainage of 16,000 hectares; and constructing an irrigation canal network along the Danube to raise the water level by 500 feet and irrigate more than 100,000 hectares, to be sown to sugar-beets, cotton and hemp.[10] Of the grass lands suitable for irrigation, 45 per cent were to be irrigated in 1947 and 65 per cent by 1948.

Rabbit breeding was also to be encouraged under the two-year plan. Sericulture was to be developed, and the production of silk cocoons increased by 10 per cent in 1948. During the two years, 25,000 beehives were to be established.

---

[9] P. Gruncharov, *Our Agriculture and the State Economic Plan.*

[10] *Free Bulgaria,* 15 May 1948 and 15 June 1947.

It was planned to increase timber felling by 27 per cent between 1946 and 1948. Detailed objectives were established for the area to be reforested and thinned, and 20,000 hectares of waste land were to be planted. The plan specified the milage of new forest roads to be built and of existing roads to be improved. Under the plan, the Ministry of Trade was to supply the Board of Forestry and Hunting with specified quantities of mobile rope lines, tractors, steam rollers, trucks, trailers and equipment for 50 kilometres of narrow gauge railway line.

The plan contemplated fish culture and fishing as a means of improving the diet of the population. It provided for an increase in the total catch in 1948 to about two and a half times the 1946 level. Measures to achieve this goal included artificial breeding of carp in rice fields, establishment of a specified number of breeding pools, supplying of stated quantities of cotton for fish nets and furnishing of Diesel motors and motor pumps.

Provision was also made for imports of fish net, manila rope, wire rope, cork, fish hooks and fibres. Steps were to be taken for concluding a fishery convention with the Union of Soviet Socialist Republics.

2. *Industry*

Manufacturing and handicrafts Under the plan, the output of manufacturing industries was to be increased to 36 per cent above the 1939 level in 1947, and to 67 per cent above this level in 1948. The value of industrial output at constant (1939) prices was to be increased from 11,122 million leva in 1939 to 15,109 million leva in 1947 and 18,611 million leva in 1948.

The proposed output for the major groups of manufacturing industries at the end of the two-year plan, as percentages of 1939 production, is shown below:

Rubber	245
Chemicals	241
Building materials	185
Metals	167
Textiles	166
Processed foods	149
Other industries	152

All industrial production, including mining and construction, represented approximately 20 per cent of the total value of production in Bulgaria at the beginning of 1947. This slight share reflects the economic under-development of the country. Since light industries were considered more satisfactorily developed, expansion was judged particularly desirable in metal mining and manufacturing, engineering, chemicals, fuel and power. This view is reflected in administratively determined targets for important industries, shown below as percentages of the 1939 production level:

Metal mining	933
Mineral oils and lubricants	920
Machinery, including agricultural implements	579
Soap	500
Sugar refining	240
Knit goods	226
Metal processing	199
Bricks and tiles	188
Flour milling	167
Cotton goods	162
Rice processing	160
Cement	156
Wool textiles and clothing	118

The projected increase in the manufacture of machinery was to be effected largely through use of military plants, but new plants were expected to provide the increase in cement production. Over 14,000 unusable spindles[11] were to be repaired and placed in operation during 1947, and new hemp and flax mills were to be built. The plan provided for an increased production of sandals to satisfy the needs of the rural population.

Construction was begun on a nitrogen fertilizer plant. This development was considered important to the industrialization programme as well as to the efficiency of Bulgarian agriculture. Similarly, construction of plants for the manufacture of sulphuric acid, copper sulphate, caustic soda and other chemicals was started; their output was expected to effect a substantial saving of foreign exchange.

The plan provided for developing timber industries and also for setting up new refrigerating plants, largely to raise exports. Construction was begun on a State-owned telephone equipment factory which was also scheduled to produce radios, electric clocks and other electrical equipment. Another factory was planned to provide equipment for smaller power plants, spare parts for street cars and similar products. A copper refinery was also to be built to assist in the electrification programme.

Prior to the application of the two-year plan, the total value of craft production was about 30 per cent of the value of all industrial production. Approximately 100,000 craftsmen, plus 126,000 employees, were engaged in craft occupations. The general objective of the plan was to increase craft production by 30 per cent between 1946 and 1948. Craft work was to be rationalized and consolidated gradually into manufacturing industry.

Even the planned increases in craft output, however, would fail to restore production to the 1939 level, since it was estimated that the 1946 output was only 60 per cent that of 1939. The 1948 objective therefore amounted to approximately 78 per cent of the pre-war output.

---

[11] Compared with a total pre-war capacity of 226,000 spindles, according to the *International Cotton Bulletin.*

The Ministry of Trade was instructed to provide all craftsmen with necessary materials. The plan abolished the former system of distributing raw materials through regional offices and prohibited the issuance of piece-work by industrial establishments to craft enterprises, since this practice was considered harmful to industrial productivity. Special trade marks were to be used to distinguish industrial production from craft output. The plan prohibited the opening of new craft shops without official permission, but encouraged the development of co-operative projects among craftsmen.[12]

Electric energy. Projects for developing fuel and power under the two-year plan were divided into electrification, water development and mining projects—all administered by the Ministry of Electrification. The electrification programme was to be administered by the Board of Electrification in this Ministry.

Production of electric power in 1946 was 56 per cent above the 1939 level. The two-year plan provided for increases in 1947 and 1948 to 68 per cent and 96 per cent, respectively, above the 1939 levels. The planned increase for 1947 was comparatively small, since most of the increase was scheduled for 1948.

The production of electric energy was to be increased from 440 million kilowatt-hours in 1946 to 480 million in 1947 and 580 million in 1948, in accordance with the following schedule:

PLANNED INCREASES IN ELECTRIC POWER, 1947 AND 1948
COMPARED WITH 1946 OUTPUT
(In thousands of kilowatt-hours)

Type	*1946*	*Planned, 1947*	*Planned, 1948*
Hydro-electric	202,500	211,000	250,000
Steam	222,000	252,400	315,000
Diesel	16,000	16,000	15,000
TOTAL	440,500	480,000	580,000

Source: Free Bulgaria, 15 July 1947.

Although the planned increase was substantial, it was expected to leave the supply of electric energy considerably below requirements, which were estimated at 630 million kilowatt-hours for 1947, and 800 million or more for 1948. The figures indicate that, because of added requirements, the shortage of electricity was expected to be intensified rather than relieved during the first year of the plan. Capacity and immediate requirements were not expected to balance until 1949, when a production of 900 million kilowatt-hours was forecast. Meanwhile, industrial requirements were scheduled to receive priority. Electrical generating output in 1950, when many major projects were scheduled for completion, was expected to rise to 1,400 million kilowatt-hours, which would correspond to a capacity in the neighbourhood of 350,000 kilowatts.

---

[12] Of the 226,000 persons engaged in crafts at the beginning of 1947, some 18,000, including bakers, dressmakers and others, were organized in 500 co-operatives.

The plan for 1947 included provisions for beginning work on the following major projects: 12 thermal power stations, 16 hydro-electric power stations, 16 transmission substations, 560 kilometres of transmission line of 110 kilowatt capacity, 319 kilometres of transmission line of 60 kilowatt capacity, 1,517 kilometres of transmission line of 15 or 20 kilowatt capacity, 210 rural distribution stations and 310 transmission posts and minor substations.

The programme for 1948, apart from continued work on the projects started in 1947, was to include initiation of the following projects: 2 steam power stations and several water power stations, 2 transmission substations, 60 kilometres of transmission line of 110 kilowatt capacity, 1,181 kilometres of transmission line of 15 or 20 kilowatt capacity, 46 kilometres of transmission line of 60 kilowatt capacity, rural distribution stations for 280 villages and 317 transmission posts.

The electrification projects were given a high degree of priority throughout the plan. All projects of the Ministry of Electrification were given priority in purchasing equipment from abroad and from domestic sources, in obtaining trained personnel and in transportation. The Ministry of Trade, the Board of Natural Resources in the Ministry of Electrification and the Board of State Railways were directed to give priority to power stations in the supply of coal, liquid fuel, oil and spare parts.

The production, transmission and distribution of electric power was to be unified for the country as a whole. The Ministry of Trade and the Board of Labour Service were enjoined to introduce night shifts in order to facilitate the supply of electricity and to enable industries to shift the demand for power to off-peak periods.

The Board of Electrification was made responsible for the development of hydro-electricity and for the progress of multi-purpose projects. Development of water resources for purposes other than power was placed under the control of the Water Department.

Provision was made for a survey of the major river systems in order to prepare co-ordinated plans for their utilization. All such plans were made subject to approval by the Board of Electrification, because of the high priority given to power in the development of water resources.

It was planned to construct nine dams, with a total capacity of 1,000 million cubic metres on the Isker, Dragovishtitsa, Panicheshte, Malak Isker, Peschanik, Dospat and Vacha Rivers. Construction of the Rositsa and Topolnitsa dams, under way at the inception of the plan, was to be continued. The three principal new projects were the Georgi Dimitrov dam on the Tundzha River, the Studena on the Struma and the Pasarel dam on the Isker; the Rhodope dam was the largest project under consideration.

The plan outlined auxiliary measures to be executed by other Government departments to aid electrification. Such measures included, for example, the delivery of specified quantities of timber by the Forestry Department of the Ministry of Agriculture; the importation of mining machinery and of food and clothing for miners by the Ministry of Trade; the building of roads in mining areas, railways and distribution centres by the Ministry of Public Works; and the trucking of coal from the railway stations to points of consumption by the Ministry of Railways and the Director-General of Motor Transport.

Mining. Solid fuel production in 1946 was 60 per cent above that of 1939. The two-year plan envisaged a further increase to 106 per cent above the 1939 level in 1947, and to 125 per cent above the 1939 output in 1948.[13] The major increase in the production of solid fuel, in contrast to that in the generation of electricity, was to occur during the first year of the two-year plan.

The two-year plan prescribed the completion of surveying and prospecting in the Sofiya coal-field, the continuation of prospecting in the Maritsa and Burgas fields, geological and mining research in the Balkan mountains and the compilation of a list of regions with probable oil deposits, as well as prospecting in these regions. Standards for maximum ash content of different types of coal were to be established by May 1947.

The law embodying the plan accorded coal-mines priority in obtaining labour, and included the provision that if voluntary labour were not obtained, labour was to be made available on a compulsory basis as part of the labour brigade system, mentioned below. The official wage schedule for mine workers was to be equal to the highest wage scale of any other industry and the living conditions of mine workers were to be improved generally.

Under the plan, metal mining in 1948 was scheduled to increase 55 per cent above the 1946 output, to nine times that of 1939. The production of other minerals was to be increased 76 per cent above the 1946 level in 1948.

3. *Transport*

The planned increases in transportation activity during 1948, expressed as percentages of 1946, are shown on following page.[14]

---

[13] The target refers chiefly to lignite; anthracite and bituminous coal represented only 2.6 per cent of total coal and lignite production in 1946, according to the Statistical Office of the United Nations, *Monthly Bulletin of Statistics*, Supplement, June 1948, page 32.

[14] Ministry of Information, *Two-Year Economic Plan of Bulgaria* (Sofiya, 1947).

Railway freight	134
Railway passengers	103
Railway luggage and parcels	110
Motor freight	189
Motor passengers	130
Motor luggage and parcels	105
Waterway freight	230
Waterway passengers	206

The largest increases were to occur in transportation by water, and the next largest in motor transportation. All institutions, firms and persons engaged in transportation were instructed to supply the Directorate-General of State Railways with detailed estimates of their current year's requirements for transport services. These estimates were to be used in determining annual transportation plans.

Railways.[15] The Ministry of Railways was directed to take the following measures:

(*a*) To prepare monthly plans for freight and passenger transportation, consisting of separate plans for railways, motor roads and waterways and indicating types of transport and destination The plans were to be presented for approval to the Supreme Economic Council not later than the twentieth day of the month preceding their application;

(*b*) To shorten the average turn-round of goods waggons from nine days in 1946 to eight days in 1947 and six days in 1948, while increasing the average load from 6.0 tons in 1946 to 6.2 tons in 1947 and 6.3 tons in 1948; to reduce the proportion of empty goods waggons from 29 per cent in 1946 to 27 per cent in 1947 and to 25 per cent in 1948. The average useful load of goods trains was to be increased from 230 tons in 1946 to 280 tons in 1947 and to 290 tons in 1948;

(*c*) To reorganize and rationalize railway services by strengthening discipline, improving management and labour standards, improving statistics and maintaining an efficient system for repairing machinery and equipment;

(*d*) To construct 20 kilometres of new railway lines in 1947 and 100 kilometres of new lines in 1948. This addition would raise Bulgarian railway milage 3 per cent above the milage of 1946 and more than 30 per cent above that existing in 1939.

It was estimated that new railway equipment required under the plan would include 16 engines, 32 Diesel engine cars, 91 passenger cars and 212 goods waggons. These were to be imported.

---

[15] The main railway lines of Bulgaria run from Sofiya to Plovdiv and Svilengrad, with extensions into Yugoslavia near Dragoman and into Greece and Turkey near Svilengrad. Another main line northward from Sofiya branches at Mezdra, with main lines to Vidin on the Romanian border, by way of Byelogradchik, and to Somovit, on the Romanian border to the east. The latter branch connects with a west-east line which touches Levski, Popovo and Shumen and ends at the seaport of Stalin (Varna). The other two main lines are east-west in direction—from Pomorie, a port south of Stalin, to Karlovo, near the geographical centre of the country, and Plovdiv.

Motor transport. The Ministry of Railways was instructed to introduce a bill to centralize the control of motor transport within a month from the date of application of the two-year plan. The bill was to provide for regulating fuel and oil supplies, organizing truck repairs and fixing prices for such repairs. The share of private enterprise in motor transport was to be reduced from 80 per cent in 1939 and 60 per cent in 1946, to 27 per cent in 1948.

The number of motor trucks and buses in use in 1946 was reported below the 1939 level, owing to the large number of damaged trucks. It was planned to improve this condition by importing 1,400 motor trucks in 1947 and 1,200 in 1948. Other imports were to include 160 buses in 1947 and 185 in 1948. The sum of 136 million leva (US$476,000) was set aside for the repair of damaged trucks and buses in 1947 and 127 million leva was allotted to pay for the importation of spare parts, tires and repair tools for garages during 1948.

Shipping. The Ministry was further instructed to introduce a bill containing a national economic plan for the organization of shipping, within one month of the application of the two-year plan. It was also proposed to construct a State shipyard.

The tonnage of Bulgarian shipping in 1946 had fallen to less than half that of 1939. Three ocean-going ships, with a total capacity of 15,400 tons, were to be purchased abroad, and 4,500 tons of submerged ships in the Danube were to be raised. It was planned to increase total shipping tonnage in 1947 to the 1939 level, and to double it during 1948.

Other targets. The Air Communications Department was instructed to establish regular national and international air lines.

The Ministries of Electrification and of Trade were instructed to guarantee the necessary supplies of coal, fuel, building materials and spare parts.

Price targets under the plan were to be achieved in part by a 10 per cent reduction in transport costs and by more efficient management and integration of the transport system. In order to increase income from transport activity, the Ministry of Railways was instructed to conclude international conventions to attract the maximum volume of rail and water traffic to Bulgaria.

4. *Labour*

Employment. It was planned to increase the total number of workers and employees by 16 per cent between 1946 and 1948. Departmental responsibility for this increase rested mainly with the Board of Labour Service, which was also made responsible for organizing the employment of military labour units or labour brigades, especially in the construction programme, and was instructed to establish special youth headquarters for this purpose.

Since the total number of gainfully employed in the various branches of economic activity, apart from agriculture, totalled about 667,000 persons when the plan was applied, the projected increase of 16 per cent implied recruitment of approximately 106,000 additional workers.

Productivity. The plan provided that labour productivity was to be increased between 1946 and 1948 by 20 per cent in industry and building, 15 per cent in transport and 5 per cent in mining. This was to be accomplished chiefly by three means: improved management, labour incentives and training.

In order to achieve these goals, the various Government departments were requested to present proposals to the Supreme Economic Council for the technical reorganization of the work in their respective fields, and the government-sponsored Institute of Labour Standards was instructed to present plans for norms of production in the various branches. All employers were instructed to secure the full participation of their workers, in co-operation with labour union committees, by such measures as competitions and the organization of special shock teams. The labour section of the Supreme Economic Council was instructed to work out plans to reduce needless labour turnover.

Labour was to be paid according to wage tables prepared by the State. Wage increases were to be granted to workers only in proportion to their improvement in efficiency, and such increases were to be used as incentives to further productivity.

Training. Since the shortage of technical experts was considered a serious obstacle to the execution of the plan, the Board of Professional Education was directed to institute an extensive system of labour and technical training. The Board was to be enlarged to cope with this task. It was to expand existing colleges for electrical engineering, create at least four schools of mechanical engineering and at least six schools of industrial technology, select at least 10,500 young men for training in these schools, create institutions for training teachers and lecturers for the technical schools, mobilize specialists for teaching and organize training schools and courses in every suitable enterprise throughout the country.

At the time the plan was initiated, training schools had been opened in three Government ordnance factories and in the Pernik mines. The Ministry of Electrification had opened nine training schools and the Ministry of Public Works, sixteen. It was estimated that the economic programme would require 8,000 additional technicians.

The number of available agronomists was estimated at 1,470, whereas about 5,000 were needed to fulfil the purposes of the plan. About 220 mining technicians were available, compared with an estimated need for 600. Similar shortages were reported in other professional and technical fields, including medicine, nursing and teaching.

The number of students enrolled in agricultural training courses in 1948 was to be double the number in 1946. Training for suitable work was to be substituted for maintenance in providing for the unemployed; a credit of 10 million leva (about US$35,000) was advanced from the unemployment fund for this purpose.

5. *Health and education*

The Ministry of Education was instructed to form a joint commission in co-operation with other departments to prepare a plan, for the consideration of the Supreme Economic Council, to reorganize the educational system. The opening of new schools and the selection of pupils for existing higher schools was scheduled to take place in accordance with special Government directives.

The former educational system was criticized for placing excessive stress on general education rather than on specialized technical instruction. According to the law approving the plan, 84 per cent of all college students were trained in general courses and only 16 per cent in technical courses; for every youth who received specialized instruction in agriculture, industry or trade, more than ten were given a general education. It was considered that this led to a shortage of specialists and an excessive number of persons with general training for which they found no useful outlet. The plan encouraged technical rather than general education.

Under the plan, 400 million leva (about US$1.4 million) was provided for the construction of hospitals, medical laboratories, maternity homes, health centres and similar institutions. An additional 320 million leva (about US$1.12 million) was allocated for the construction of thirteen co-operative hospitals, the improvement of rest and vacation homes and related purposes. The building programme also included the construction of health stations and day nurseries.

The sums provided in the plan for 1947 and 1948 to protect the health of workers and civil servants were 135 per cent and 230 per cent, respectively, above the corresponding expenditures in 1946.

6. *Foreign trade*

The central objective of the two-year plan with regard to foreign trade was to increase the quantum of exports (value at constant prices) to almost two and a half times the 1946 level by 1948. It was estimated that this would secure sufficient imports to execute the plan for 1947 and 1948. Since the quantum of Bulgarian exports in 1946 was 34 per cent of the 1939 figure, the plan presupposed exports about 15 per cent below the pre-war level.

In order to reach the export target, the Cereal Export Board was to be reorganized by the Ministry of Trade in consultation with the Supreme Economic Council. Special attention was to be given to improving the quality of export commodities. Commercial relations were to be established and commercial agreements negotiated with all countries interested in importing from Bulgaria; so far as possible, exports were to consist of processed goods. The largest possible credits from abroad and the longest possible terms of payment were to be negotiated in commercial agreements with foreign countries.

The Ministries of Industry and of Trade were instructed to prepare a complete list of types of machinery then being imported and to designate items which could be produced domestically or which for other reasons need not be imported.

The trade agreements concluded with the Union of Soviet Socialist Republics in 1945 and April 1946 guaranteed an exchange of goods amounting to approximately 23,000 million leva (about US$80.5 million). Similar trade agreements were signed with a number of other countries, including the Netherlands and Switzerland. The agreement with Switzerland extended credits to Bulgaria, and it was hoped that similar credits could be obtained elsewhere. The trade agreement with Czechoslovakia, referred to earlier, provided important aid to Bulgarian industries in the form of supplies, capital and technical assistance. An agreement with Yugoslavia provided for a comprehensive programme of economic collaboration, industrial specialization, standardization and the exchange of surplus machinery and raw materials.

At the end of 1947, however, Bulgarian foreign trade was still well below its pre-war volume.

7. *Investment*

It was proposed to treble the 1946 volume of capital investment in the course of the two-year plan. Total investment in 1946 has been estimated at 29,000 million leva (US$102 million), of which investment by public agencies represented 21,000 million leva. This volume of total investment represented about 9 per cent of the 1946 national income.[16]

The Supreme Economic Council was made responsible for keeping all specific investment projects within the contemplated investment total. To assist this purpose, detailed plans for investment programmes for 1947 in particular fields were to be prepared by the appropriate ministries, institutions and co-operatives and were to be presented to the Supreme Economic Council by May 1947. Municipalities were to present detailed plans for their projects to the Minister of Interior for approval. Monthly progress reports on construction and investment for each project were to be submitted to the appropriate departments, which were to classify and transmit the information to the Supreme Economic Council not later than the tenth day of the following month.[17]

---

[16] According to these figures, the planned total investment, presumed to refer to gross investment, was to reach 27 per cent of 1946 national income by the end of 1948. International Monetary Fund, *International Financial Statistics* for March 1949, reports the 1946 national income as 334,000 million leva.

The major sectors of the economy were to share in the total investment according to the following percentages:

Industry	14.4
Natural resources	11.9
Water	12.5
Electrification	22.5
Transport	22.2
Public works	16 5
TOTAL INVESTMENT	100.0

Under the plan, the proportion of the investment programme to be undertaken by the principal groups of enterprises was as follows for 1947 and 1948, respectively: State and autonomous agencies, 69.3 per cent and 71 per cent; co-operative agencies, 16.1 per cent and 15.1 per cent; and private agencies, 15.6 per cent and 15.9 per cent. However, additional widespread nationalization measures were undertaken during 1947.

The investment programme was to be effected without inflation, since the plan called for price stabilization, to be followed by a 5 to 10 per cent lowering of the general price level. For this reason, a series of financial measures were subsequently undertaken to assist the realization of the investment programme and to lower prices. These measures included the introduction of a new public revenue system based on an income tax and on a turnover tax designed eventually to return over 40 per cent of total State revenues. The system of State monopoly for important products was also extended, and a number of capital levies were applied, partly for revenue purposes and partly to enforce nationalization laws.

Many building materials were expected to be in extremely short supply under the strain of the investment programme; administrative arrangements to control their distribution have been described briefly. It was planned to work on outdoor construction from 1 March to 1 December each year; indoor construction was to be continued throughout the year. Plans for dwellings included the construction of 344,000 square metres of dwelling space in 1947 and 300,000 square metres in 1948. These were chiefly intended for miners, transport workers and industrial workers. A total of 18,455 dwelling units were to be constructed in the course of the two-year plan.

8. *Prices*

The plan anticipated a general reduction of at least 5 per cent in the price of industrial products. Prices of agricultural products, in general, were expected to remain at the 1946 level, but flexible price relationships were to be established by reducing the prices of some agricultural products while increasing the prices of certain industrial crops which were to be especially encouraged. It was planned to reduce the prices of goods required by craftsmen and artisans by 10 per cent.

---

[17] Ministry of Information, *Two-Year Economic Plan of Bulgaria* (Sofiya, 1947).

The lowering of industrial prices was to be achieved by a general reduction in costs and by increases in productivity, as well as by reducing the number of middlemen and rationalizing distribution and by a general 10 per cent decrease in transportation charges. Profits were to be controlled throughout the economy by the establishment of maximum rates of return in relation to the turnover of capital for each branch of industry.

The Price Control Board in the Ministry of Trade was instructed to investigate methods of fixing prices. The Price Equalization Fund was expected to encourage the maintenance of low prices and to subsidize the output of necessary products whose costs were unavoidably higher than the average level.

D. Degree of Realization

From the point of view of total national income, the plan achieved its general objective, namely to reach and go beyond the pre-war production level in agriculture, industry and other branches of the economy.[18] In terms of per capita income, however, the achievement was somewhat short of this objective, as the following figures, showing the percentages of 1938 levels, indicate:[19]

	1947	*1948*
Total national income	84	109
Per capita national income	75	97

The net value of total production (measured in millions of United States dollars at 1938 prices) was 18 per cent higher in 1948 than in 1938. Per capita output, measured on the same basis, was 2 per cent higher in 1948 than in 1938. These increases represented a marked improvement over 1947, when total output was 10 per cent lower than in 1938 and per capita output was 11 per cent lower.[20]

The increase in the absolute level of production appears to have been associated with two factors—the natural increase in population (including the increase due to the annexation of Southern Dobruja) and the diversion of labour from services to production of commodities. Such diversion is reflected in the income on account of services, which fell from the equivalent of 63 per cent of the income on account of commodity production in 1938 to 49 per cent in 1947 and 1948.[21]

---

[18] Law approving the national economic plan for 1947 and 1948. The law generally employs the term "pre-war" to refer to the year 1939.

[19] Based on figures prepared by the secretariat of the Economic Commission for Europe and published in United Nations, *Economic Survey of Europe in 1948* (Geneva, 1949), page 235. On the basis of data supplied in Haute Chambre d'Economie Nationale, *Revenu National en Bulgarie 1936-45* (Sofiya, 1947), page 133, figures for total and per capita national income for 1939 were computed at 107 per cent and 106 per cent of 1938, respectively.

[20] Computed from figures given in United Nations, *Economic Survey of Europe in 1948*, page 21. Comparable figures for 1939 were not available.

The movement of labour from services to commodity production is presumably a result of the rationalization measures and planned labour allocation emphasized throughout the law approving the two-year plan.

1. *Agriculture, forestry and fishing*

Although total agricultural production increased in 1947 and 1948, it fell below the planned objectives, by about a fourth in 1947 and by about one-seventh in 1948.[22] The chief reason for the failure to meet the 1947 agricultural target was drought, which not only prevented attainment of the agricultural goal but also affected the supply of raw materials to industry and hence depressed industrial and handicraft production in that year and in the early months of 1948.

The restoration of the pre-war level of output by the end of the period of the plan is indicated by the fact that the total net value of agricultural production in 1948 was the same as the average for the years 1934 to 1938. Expressed in millions of United States dollars at 1938 prices, this value averaged $191 million in both 1934-1938 and 1948-1949. In 1947-1948 it was $136 million.

The percentage of planned output obtained in 1947 for important crops ranged from 28 per cent for fruit to 79 per cent for corn; output of all cereals averaged 53 per cent of the planned objective.

The accomplishment of the 1947 objectives for the output of animal products was relatively greater than for the crop targets. Meat production was 90 per cent of the planned output; dairy products, 80 per cent; wool, 87 per cent; and leather, hides and skins substantially exceeded the planned production.

The crop results for 1948, compared with 1947, were reported for the major crops as shown in the table below. In general, the increase in production in 1948 appears to have resulted mainly from higher average yields, rather than from increases in the cultivated area.

The output of dairy products in 1948 was 65 per cent higher than in 1947 and 3 per cent above the planned objective. The milk supply in 1948 exceeded the 1947 supply by 34 per cent and amounted to 95 per cent of the planned output for 1948.[23]

The 1947 plan for sowing was reported to have been fully implemented, and 92 per cent of the sowing planned for 1948 was accomplished. The 1947 programme for marsh drainage was fulfilled. The total area of arable land in 1948 was reported to have increased 2.7 per cent over 1947.

---

[21] United Nations, *Economic Survey of Europe in 1948.*
[22] *Ibid.*
[23] *Free Bulgaria,* 15 March 1949.

CULTIVATED AREA, YIELD AND PRODUCTION OF MAJOR CROPS, 1948
(In percentages of 1947)

Crop	*Cultivated area*	*Average yield*	*Production*
Wheat	113	154	174
Barley	110	171	189
Oats	93	162	151
Seed corn	93	127	119
Rice	168	108	182
Sunflower seed	117	115	182
Cotton seed	..	125	157
Cotton fibres	125	130	183[a]
Beans	87	285	247
Potatoes	133	178	226
Vetch	88	261	231
Forage crops, mixed	87	279	242
Lucerne	119	159	189
Vegetables	102	..	120
Fruits	108	..	..
Grapes	102	..	326
Tobacco	85	82	69
Sugar-beet	149	275	409

Source: Banque Nationale de Bulgarie et Banque d'Investissement de Bulgarie, *Monnaie et Crédit,* 1949, No. 1, page 91; tobacco and sugar-beet figures from *Free Bulgaria,* 15 March 1949.

.. Not available.

[a] 163, according to *Free Bulgaria.*

The programme to organize State and collective centres for farm machinery appears to have been successful, according to the figures below. Since the planned number of co-operative farms was 560 for 1947 and 800 for 1948, the target was almost attained during 1947 and was surpassed during 1948.[24]

	1947	*1948*
State farms:		
Number	56	86
Arable area (hectares)	20,951	78,441
Co-operative farms:		
Number	537	890
Arable area (hectares)	177,030	240,817
Membership	48,461	65,084

The target for establishing tractor stations was reported to have been met in 1947 and exceeded during 1948 by 21 stations. There were 30 stations in 1947 and 71 towards the end of 1948. The progress made in the number of tractors in relation to the area of arable land was reported as follows:[25]

---

[24] *Free Bulgaria,* 15 March 1949; Towards the end of 1948, the number of co-operative farms was expected to be 1,163.

[25] United Nations, *Economic Survey of Europe in 1948,* page 208.

	Number of tractors (In thousands)	Arable land per tractor (In hectares)
1946	4.6	920
1947	4.9	870
1948	5.0	850

Difficulties encountered in the programme for foreign trade appear to have curtailed imports of agricultural machines and hence to have retarded the programme for the mechanization of agriculture. In 1947 the farm machinery stations were provided with 243 tractors, compared with the 600 planned.

The objective of obtaining improved crop yields through State and co-operative farms and the system of stations for farm machinery nevertheless seems to have been successful; the co-operative and State farms are reported to have exceeded the performance of private farms in average yield. This is shown in the following figures, which give the average crop yields of co-operative and State farms in 1948 as percentages of those of private farms.[26]

	State farms	Co-operative farms
Wheat	121	117
Barley	129	..
Oats	124	118
Maize	133	108
Tobacco	169	..
Cotton	104	219
Beans	106	108
Potatoes	167	134
Vetch	128	119
Alfalfa	101	..

Although over-all figures regarding the degree of fulfilment of the plan for forestry are not available, the following percentages, showing the degree of execution of certain planned objectives for 1948, indicate that the immediate goals were attained but that the long-term programme for forestry was retarded:

Supply of construction timber	126
Transportation to collection points	114
Trees felled	106
Annual afforestation plan:	
In flooded and low production areas	74
In forest clearings	58
In level protected belts	14

Only 70 per cent of the planned fish catch was obtained in 1947; failure to reach the target was attributed to a poor fishing season and to lack of equipment.

2. *Industry*

Manufacturing.[27] In 1947, industry attained about 83 per cent of the proposed objective. Industrial production increased about 15 per cent, instead of the planned 36 per cent, above the 1939 level. Food industries attained only 65 per cent of their goals, owing to drought and other agricultural difficulties. The metal, machine tool, steel and engineering industries likewise lagged considerably. Production of most consumer goods, building materials and chemicals was near the targets set, and rubber, leather and tobacco production exceeded the objectives.

---

[26] *Free Bulgaria,* 15 March 1949.

[27] The progress of handicraft production under the plan was not reported separately; it had been planned to consolidate craft work into industry gradually during 1947 and 1948.

In 1948, many industries surpassed the output planned for that year, as shown below.

FULFILMENT OF INDUSTRIAL PRODUCTION PLAN, 1948
(In percentages of planned objectives)

Industrial branch	*Production*
Power	98
Extractive industries	89
Manufacturing industries	107
Metal production	98
Metal processing	94
Machine construction	106
Electrical industry	110
Chemicals	128
Rubber	118
Building materials	100
Fine ceramics and glassware	136
Paper	120
Leather	134
Shoes	127
Furs	110
Textiles	106
Foodstuffs	125
Tobacco	77
Woodworking	99

Source: Free Bulgaria, 15 March 1949

Indices of production for various branches of industry during the period from 1939 to 1948 indicate that engineering products and foodstuffs made rapid progress during 1948. The level of output of engineering products and of foodstuffs and other consumer goods in that year was almost two-thirds above that in 1939.

Electric energy. Available data indicate that targets for increased electric power capacity were not achieved in either 1947 or 1948, but that the production of electric energy advanced according to the plan. The plan provided for a capacity of 153,000 kilowatts in 1947 and 200,000 kilowatts in 1948.[28] The installed capacity has been estimated at 137,000 kilowatts in 1947 and 170,000 in 1948, compared with 104,000 kilowatts in 1938 and 127,000 kilowatts in 1946.[29] The 1947 target for the production of electric power was over-fulfilled by 2 per cent; in 1948 it reached 98 per cent of planned output and was 112 per cent and 207 per cent of 1947 and 1939 output, respectively.[30]

---

[28] *Free Bulgaria,* 15 July 1947.

[29] United Nations *Economic Survey of Europe in 1948,* page 288; the percentages have been compiled from absolute figures.

The increase in the output of electric energy, which was relatively greater than the expansion of installed capacity, was apparently achieved by improved utilization of available power generation facilities, as anticipated in the plan.

Mining. Total coal production in 1946 amounted to 3.5 million metric tons. In 1947, the output was 4.0 million tons,[31] or 15 per cent above the 1946 level and equivalent to about 90 per cent of the planned objective.[32] Production in 1948 was 96 per cent above that of 1939[33] and 6 per cent higher than in 1947, or about 87 per cent of the goal set by the plan. The failure to meet the goal in full was attributed to lack of trained personnel, worn-out equipment and an inadequate supply of electric power and materials. The improvement over 1946 was attributed to improved organization and labour discipline and effort.[34]

The production of copper, lead and zinc ores in 1948 was reported at forty-two times the level of 1939 and 22 per cent above 1947.[35] The target for 1948 anticipated that production of all ores would be about nine times that of 1939. Despite expanded production, however, ore mining represented an almost negligible proportion of total industry.

3. *Transport*

The transport plan for 1947 was considered satisfactorily implemented since traffic facilities were sufficient to cope with the general volume of production and trade.

Of the 1948 railway transport goals, 99 per cent were reported realized. The railway freight target was reported 89 per cent fulfilled; the passenger traffic target, 126 per cent; and milage per capita, 115 per cent.[36]

Tonnage in 1948 was 117 per cent that of 1947, transport milage 116 per cent and the number of passengers 121 per cent. Compared with railway tonnage carried in 1938, the 1946, 1947 and provisional 1948 figures were 128, 154 and 179 per cent, respectively.[37]

Freight transport targets were realized to the following extent in 1947: railways, 82 per cent; motor freight, 88 per cent; and water freight, 72 per cent.

---

[30] *Free Bulgaria,* 15 January 1948 and 15 March 1949.

[31] *Bulletin de la Direction de la Statistique,* 1948, No. 1, page 6.

[32] *Free Bulgaria,* 15 November 1947 and 1 March 1948.

[33] Banque Nationale de Bulgarie et Banque d'Investissement de Bulgarie, *Monnaie et Crédit,* 1949, No. 1, page 91.

[34] *Free Bulgaria,* 1 March 1948.

[35] *Ibid.,* 15 March 1949.

[36] *Ibid.*

[37] United Nations, *Economic Survey of Europe in 1948,* page 79.

Total 1947 freight tonnage was 119 per cent above that of 1940, and the number of passengers carried was reported as 37.7 million, compared to 16 million in 1940.

The first civilian airline, from Sofiya to Burgas with a stop at Plovdiv, was inaugurated early in 1948. Shortly afterwards, a scheduled flight by one plane, from Sofiya to Stalin (Varna), was announced. Initial progress towards establishment of air communication with other countries was also reported.[38]

4. *Foreign trade*

Foreign trade fell short of the 1947 target; exports were 84 per cent of the planned level and imports 60 per cent. The plan provided for exports of 29,200 million leva and imports of 36,000 million, but exports were 24,500 million and imports were 21,400 million leva.[39]

Under the plan, the quantum of exports was to be increased to almost two and a half times the 1946 level by 1948. Indices of the quantum of Bulgarian imports and exports follow:[40]

	Imports	*Exports*
1939	100	100
1946	58	34
1947	71	48
1948 (first quarter)	89	70

During the first quarter of 1948, imports were more than 20 per cent above the 1947 figure and exports were almost 50 per cent above; the planned target was within 82 per cent of fulfilment.

During 1947 Bulgarian terms of trade appear from the figures below to have been more favourable than in 1938, but data for the first quarter of 1948 indicate a slight deterioration. The 1947 unit values of Bulgarian imports and exports, in percentages of 1938 unit values, were as follows:[41]

	1947	
	First half	*Second half*
Imports	235	234
Exports	338	339
Terms of trade (cost of imports in terms of exports)	70	69

5. *Investment*

The 1946 volume of investment was to be trebled under the two-year plan. It was reported that the volume of investment in 1948 amounted to 68 per cent of the planned output and that investment in 1948 exceeded that of 1947 by 25 per cent.

---

[38] *Free Bulgaria,* 15 February, 1 March and 15 May 1948.

[39] United Nations, *Economic Survey of Europe in 1948,* page 173.

[40] Statistical Office of the United Nations, *Monthly Bulletin of Statistics,* August 1949.

[41] United Nations, *Economic Survey of Europe in 1948,* page 98

The extent of fulfilment in 1947 is shown in the following figures of actual new investment in constant prices as percentages of planned investment:[42]

Total new investment under the plan	62
Agriculture	77
Manufacturing	48
Mining	26
Transportation	98
Dwellings	89
Public investments	44

II. The five-year plan for 1949 to 1953

The Bulgarian five-year economic plan for 1949 to 1953 came into force on 1 January 1949. The general objectives of the plan were:[43]

(*a*) Maximum development of the means of production as a basis for the country's industrialization;

(*b*) Improvement of energy resources by construction of fifteen new electric power stations;

(*c*) Expansion of the extractive industries to achieve a production level in excess of domestic requirements;

(*d*) Maximum utilization of the potentialities of industrial plants and mine and transport facilities;

(*e*) Achievement of maximum quantity and quality of agricultural and industrial production;[44]

(*f*) Encouragement of rationalization and inventiveness throughout the economy;

(*g*) Provision of adequate man-power for the requirements of the economy;

(*h*) Increase in national savings;

(*i*) A higher material and cultural standard of living for the working class to be achieved, in part, by an increase in the national income from 52,000 million leva (in 1939 prices) in 1948 to 96,000 million leva in 1953 and by an increase in the workers' wage fund to 104,000 million leva by 1953 (at 1953 prices)—39 per cent above the 1948 figure;

(*j*) The greatest possible extension of the agricultural co-operative system, the organization of 1,200 artisan co-operatives to attain a membership of 60,000 and complete elimination of the capitalist class from industry and transportation;

(*k*) Reinforcement of the dominant position of the working class with about 60 per cent of total agricultural production and 72 per cent of total commodity production under the auspices of public enterprise;

(*l*) Consolidation of the foundations of socialism; and

(*m*) Strengthening of the national defence position.

---

[42] United Nations, *Economic Survey of Europe in 1948*, page 174.

[43] *Free Bulgaria*, 1 and 15 January 1949

[44] Utilization of electric energy in industry and agriculture was cited as an important means of improving production.

In general, the five-year plan continued the policies of the two-year plan which preceded it. It was planned, however, to accelerate the tempo of the programme to eliminate private enterprise and to industrialize the economy. A significant difference between the two plans was the provision in the five-year plan for a considerable increase in consumption.

In Bulgarian comment on the five-year plan, stress was laid on the advances to be made in industrialization, electrification, mechanization of agriculture and extension of the co-operative system. The relative contribution of agriculture and industry to the total economy was to be more nearly equal.

In addition, the structure of industry itself was to be altered to give greater emphasis to heavy industry. To achieve the latter purpose the plan allocated to heavy industry 83 per cent of the total capital to be invested in industry. The plan envisaged new lines of industrial production, such as the manufacture of cranes, construction machines, movable compressors and air-compressors. Special emphasis was to be laid on the production of all types of farm machinery, with the exception of tractors, in Bulgaria. The heavy chemical industry was also to receive particular attention; sulphuric, nitric and hydrochloric acid, calcium compounds, caustic soda, cellulose and various other chemicals of industrial and agricultural importance were to be produced. It was planned to decrease costs by 14 per cent in industry, 20 per cent in forestry, 16 per cent in transport and 22 per cent in construction.

A. Agriculture, Forestry and Fishing

Agricultural production in 1953 was scheduled to reach 159 per cent of the 1939 level. The area of arable land was to be increased by 165,000 hectares in the course of the five-year period by draining marshes and by utilizing the forested valley lands. Plant growing and stock raising were to exceed their 1939 levels by about 56 per cent and 61 per cent, respectively, in 1953. Cereal production, assuming an average yield of 15 quintals per hectare, was expected to exceed that of 1939 by 20 per cent—more than sufficient to meet domestic requirements. Industrial crops were expected to exceed the 1939 level by 50 per cent; the corresponding figure for plant fibres was 200 per cent. The number of horses was to be increased to 109 per cent of the 1939 level; the number of cattle to 120 per cent; the number of poultry to 200 per cent; and the number of pigs to 250 per cent, of 1939 levels.

Various important measures were planned in order to achieve the agricultural targets. Among these were a 65,000 ton increase in the use of artificial fertilizers, the irrigation of 300,000 hectares of land, the creation of new forests on the plains, for the summer and winter protection of crops, the construction of agricultural centres equipped to combat plant diseases and parasites, the artificial insemination of cattle and the establishment of stock-raising farms. There were expected to be 150 stations for agricultural machinery and 10,000 tractors by 1953. The agricultural labour co-operative system was to be extended to 60 per cent of the farming area, bringing the total area under the co-operative system to about 3 million hectares.

The forestry provisions of the five-year plan included afforestation of 180,000 hectares and mechanization of the processing of forest products.

The supply of fish was to be increased by 280 per cent, compared with the 1939 level.

B. INDUSTRY AND COMMUNICATIONS

According to the plan, industrial production in 1953 was to reach 220 per cent of the level attained at the end of 1948. The relative importance of industries furnishing the means of production was to be increased from 20.7 per cent of the total national output in 1939 to 44.5 per cent in 1953.

The products of light industry were to increase from 151 per cent of the 1939 level in 1948 to 182 per cent in 1949 and 265 per cent in 1953—thus exceeding 1948 output by 75 per cent. The plan for 1953 amounted to an increase of 130 per cent over the 1939 level for textiles, 290 per cent for chemicals, 680 per cent for rubber, 100 per cent for leather, 880 per cent for glass, 180 per cent for food, 40 per cent for tobacco and 130 per cent for timber processing. By 1953 the output of the food industry was to constitute one-third of the entire production of all light industry. Special emphasis was to be laid on canning, especially on the production of jams, jellies, fruit pulps and similar products.

Productivity in industry as a whole was expected to increase 62 per cent, construction 115 per cent and rail transport 30 per cent.

The plan provided for the construction of 392 kilometres of railway track and the electrification of 150 kilometres. New facilities were to be developed for motor vehicles and water and air transportation. Air transport was to be increased by 80 per cent over 1948. It was planned to install telephone lines in 1,370 localities, thereby increasing the telegraph and telephone network by 34 per cent over 1948.

The plan envisaged a rise of 23 per cent in the industrial labour force and of 30 per cent in the number of workers employed in construction. Total wages were to be increased 64 per cent in industry, 80 per cent in construction and 34 per cent in transport. It was planned to raise the number of secondary school, college and university graduates by 123 per cent. The consumption of goods was to be almost double that of 1948 and 60 per cent higher than in 1939.

C. INVESTMENT

Capital investments were expected to reach US$850 million during the course of the five-year plan. The total planned investment was to be distributed as follows: mining and manufactures, 40 per cent; transportation, 19 per cent; public services, 19 per cent; agriculture, 13 per cent; housing, 5 per cent; and other investment, 4 per cent.[45] It was estimated that 81 per cent of the total would be devoted to new construction, and 19 per cent was ear-marked for expansion and reconstruction. Buildings for housing and cultural activities, which were expected to increase 180 per cent between 1948 and 1953, were allotted 17 per cent of the total investment.

D. Realization of the Plan

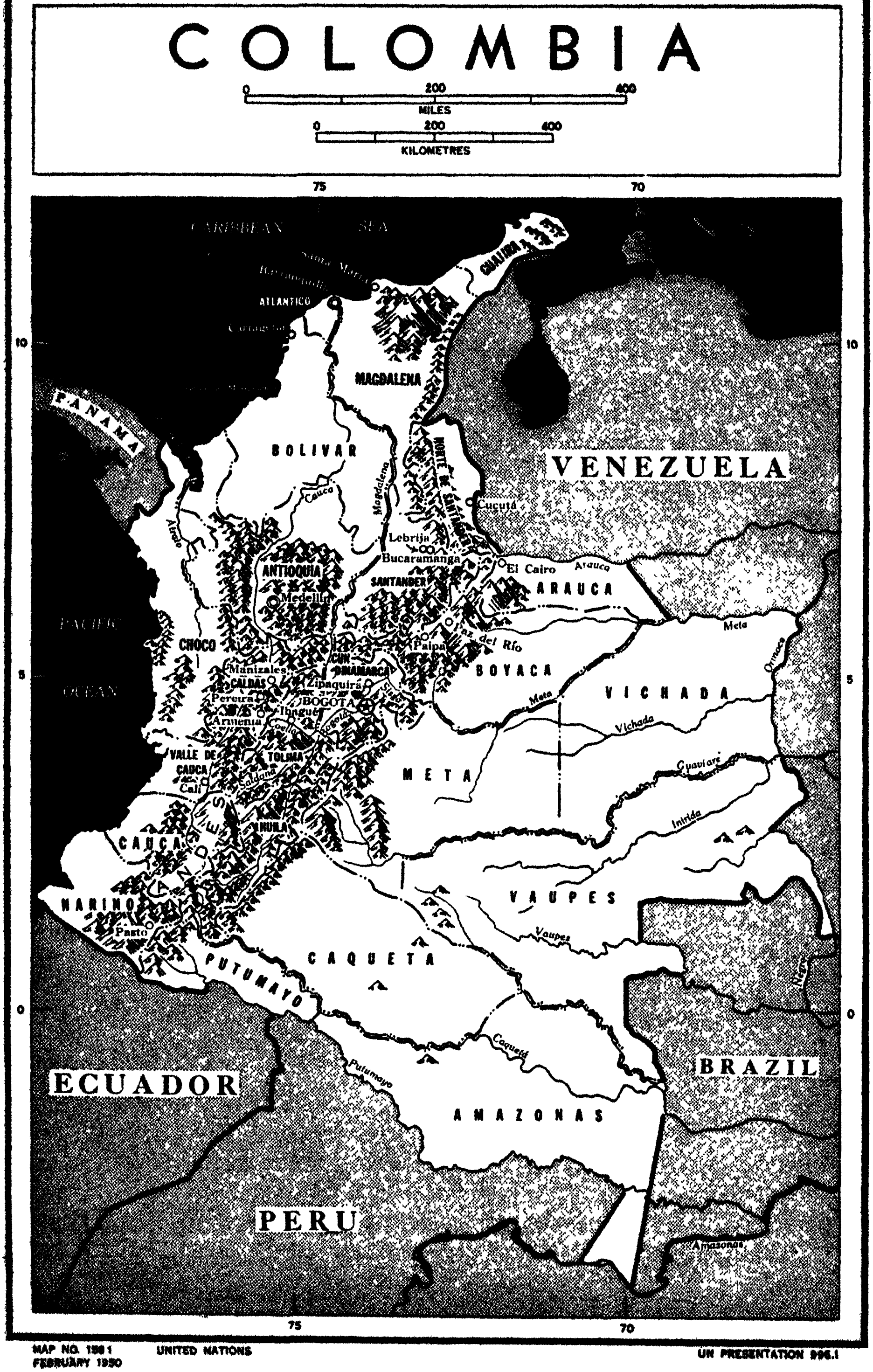
Early reports of results of the plan—for the first quarter of 1949—indicated that, on the whole, the objectives of the plan were attained during that period.[46] Power production reached 80 per cent of the planned output. Raw material production amounted to 107 per cent and industrial production to 101 per cent of the objectives. The development of the co-operative system in agriculture was ahead of schedule. The water transport plan was reported unfulfilled as a result of unfavourable navigating conditions on the Danube, caused largely by ice movements and low water. The low rate of achievement of the capital investment plan—at 51 per cent of the goal—was attributed to lack of organization and preparation and to unfavourable weather conditions. The rate of fulfilment of the man-power plan was 111 per cent for industry, 109 per cent for transport and 94 per cent for communications. Labour productivity reached 93 per cent of the planned objective in industry and 98 per cent in rail transport. Power shortages and organizational deficiencies were reported to have delayed the projected increase in the productivity of labour.

---

[45] United Nations, *Economic Survey of Europe in 1948*, page 203.
[46] *Free Bulgaria*, 15 May 1949.

COLOMBIA

COLOMBIA



MAP NO. 1581
FEBRUARY 1950

UNITED NATIONS

UN PRESENTATION 996.1

COLOMBIA

I. Economic planning and co-ordination

A. GENERAL PLAN FOR ECONOMIC DEVELOPMENT

The Government of Colombia, by Decree 1,157 of 18 June 1940, adopted a general plan for the development of the country's economic activities.[1] By means of this plan, the Government sought to attain a rate of production of foodstuffs and industrial raw materials which would not only ensure an adequate domestic supply but would create an export surplus to increase the country's purchasing power abroad.

In commenting on the plan, the Minister of National Economy stated that there were three fundamental conditions which handicapped the Colombian economy: inadequate supplies of greatly needed foodstuffs; deficiencies in the diet of the population because of underconsumption of food; and high prices of vital food, which limited the number of consumers [2]

An additional handicap was the inadequate development of Colombia's natural resources, and the consequent inability of the country fully to realize its potentialities. As a result, economic and fiscal activities were subordinated in important respects to the contingencies of the international situation. Furthermore, the economic stability and development of the country were dependent to a great extent upon the fluctuations of the coffee economy. It was recognized that this situation made it impossible for Colombia to be assured a stable minimum of necessary supplies and resulted in extreme sensitivity to external economic disturbances.

In view of these factors, the Government launched a general plan for economic development, based on the provisions of Law 54 of 1939, which authorized the Government to take adequate measures to prevent or correct the effects of the international situation on the domestic economy.

The objective of the general plan was a rational, orderly and systematic development of the entire economy, and an accelerated rate of growth. The plan was considered a directive by the Government with respect to activities in the economic field, but its effectiveness was largely dependent on the achievements of private initiative.

---

[1] Colombia, Ministerio de la Economía Nacional, *El Plan de Fomento de la Economía Nacional* (Bogotá, 1940).

[2] Colombia, *Informe del Ministro de la Economía Nacional* (Bogatá, 1940), pages 45 and 46.

It was emphasized that the establishment of the general plan did not imply limitation of private industry or competition with private enterprise. On the contrary, the provisions of the plan were considered basic to a rounded programme and to co-ordinated Government and private activities for the achievement of adequate, stable and lasting economic development. Thus, the general plan was not regarded as a series of emergency or transition measures, but rather as a permanent programme for the promotion of the country's development.

Decree 1,157 established the fundamental purposes of the plan: to compile and co-ordinate data on foodstuffs, medicinal products and raw materials of domestic origin; to exploit and utilize these resources in such a way as to encourage low-cost production of the basic requirements for industrial development, including raw materials, power, fuel, building materials and fertilizers; and to increase the technical knowledge and the productive capacity of the nation. In order to facilitate the execution of the general plan, it was divided into three separate sections —for agriculture, for livestock and for industry

B. PLANS FOR DEVELOPING AGRICULTURE AND LIVESTOCK

The agricultural development plan (*Plan de Fomento Agrícola*) provided that the most advantageous crops, from a social and economic standpoint, should be selected, and that the areas to be cultivated and the desired volume of production, taking into account domestic consumption and world trade possibilities, should be determined. Directives establishing the general policy to be followed were promulgated by Decree 1,413 of 18 July 1940; the five-year agricultural plan (*Plan Quinquenal de Fomento Agrícola*) was adopted on 9 February 1945. This set forth a programme to provide the country with sufficient food and raw materials for domestic consumption requirements.

The basic law and complementary decrees established a broad programme for the development of agriculture, to be directed by special administrative machinery, including an administrative technical council. Specifications prepared under the plan by the Ministry of National Economy for the period from 1945 to 1949 emphasized agricultual education, research and experiment, control of crop disease and intensive agricultural production.[3]

The main object of the plan was to increase the production of foodstuffs for domestic consumption and the output of agricultural raw materials in order to supply the industrial needs of the country. Special consideration was given to increases in the production of wheat, rye, potatoes, rice, sugar, tobacco, cocoa, cotton, oil-seeds and fruits. The figures below illustrate the goals of the five-year agricultural plan.

---

[3] Colombia, Ministerio de la Economía Nacional, *Plan Quinquenal de Fomento Agrícola* (Bogotá, 1945).

PLANNED AGRICULTURAL PRODUCTION, 1949
(Compared with 1945 output)

Product	*Estimated cultivated area (In thousands of hectares)*			*Estimated production (In thousands of metric tons)*		
	1945	*Planned, 1949*	*Increase*	*1945*	*Planned, 1949*	*Increase*
Sugar-cane	162.0	167.0	5.0	661.5[a]	985.5[a]	324.0[a]
Wheat	118.0	131.0	13.0	108.0	150.0	42.0
Rice	82.0	118.0	36.0	74.0	110.0	36.0
Potatoes	64.0	64.0	.	448.0	640.0	192.0
Cotton	51.0	80.5	29.5	7.0	19.0	12.0
Tobacco	15.1	18.3	3.2	18.0	24.0	6.0
Rye	3.8	27.4	23.6	4.2	30.0	25.8
Sesame seed	..	..	8.0	..	..	4.0
Ground-nuts	..	..	2.5	..	..	1.2
Coco-nuts	..	..	8.0	..	..	..
Cocoa	..	..	8.0	..	..	..
Fruit	..	..	5.3	.	..	..

Source: Colombia, Ministerio de la Economía Nacional, *Plan Quinquenal de Fomento Agrícola* (Bogotá, 1945).

.. Not available.

[a] Sugar and molasses.

The plan was intended to create the necessary conditions for increasing the domestic consumption of foodstuffs, with a view to improving the general standard of living. In the case of wheat, for example, it was estimated that per capita consumption at the end of 1944 was only about 10 kilogrammes per year; fulfilment of the plan would raise the rate to about 15 kilogrammes a year in 1949. The plan provided for an increase of 9,000 hectares per year in the cultivated area of rice and an improvement in methods of cultivation, so that per capita consumption might be increased by one kilogramme a year, to reach the goal of 12 kilogrammes in 1949.

Estimated expenditures under the five-year agricultural plan were as follows: 1945, 7.97 million pesos; 1946, 6.9 million; 1947, 7.6 million; 1948, 7.7 million; and 1949, 8.6 million pesos.[4]

The plan was initiated, however, with very limited resources. Although nearly 8 million pesos was proposed for 1945, the actual allocation was slightly more than one-half of that amount.[5] The various official and semi-official agencies concerned with agricultural development have more recently been able to implement the proposed objectives of the plan because of increased capital resources. The activities of the Agricultural, Industrial and Mining Bank (*Caja de Crédito Agrario, Industrial y Minero*), an important institution in this respect, are considered in a separate section.

---

[4] Pan-American Union, "National Economy of Colombia" *Commercial Pan America,* September and October 1946. The exchange rate of the Colombian peso was established at approximately US$0.57 in 1939.

[5] Colombia, *Informe del Ministro de la Economía Nacional al Congreso de 1945* (Bogotá, 1945), page iv.

The progress of the plan in 1947 may be seen in the table below.

PLANNED AND ACTUAL OUTPUT OF SELECTED AGRICULTURAL PRODUCTS, 1947

(In thousands of metric tons)

Product	*Production*	
	Planned	*Actual*
Sugar (excluding molasses)	76	83
Wheat	128	78
Rice	92	131
Potatoes	544	499
Cotton	15	6

Source: Planned production: Colombia, Ministerio de la Economía Nacional, *Plan Quinquenal de Fomento Agrícola, 1945;* actual production: Food and Agriculture Organization of the United Nations, *Food and Agricultural Statistics, 1949*

The livestock development plan (*Plan de Fomento Ganadero*) was outlined in Decree 1,414 of 18 July 1940. Its primary objectives were to establish adequate cattle-raising zones, to breed appropriate types of cattle and to direct general zootechnical and sanitation measures

It was reported that in the ten-year period ending in 1946 the number of cattle increased 36 per cent and that the credits granted by the Agricultural, Industrial and Mining Bank to the livestock industry contributed greatly towards its development.[6]

C. INDUSTRIAL DEVELOPMENT PLAN

The industrial development plan (*Plan de Fomento Manufacturero*) was promulgated in Decree 1,439 of 18 July 1940. Its principal aim was to determine which basic raw materials and processing industries were indispensable to the economic utilization of Colombia's natural resources, with particular emphasis on those which private initiative had not developed adequately. It was hoped thereby to relieve manufacturing industries from the necessity of importing raw materials which could be produced in the country and also to create new items for export.

Under the plan, the Government was authorized to manage enterprises and also to become an entrepreneur on a temporary basis, whenever such action appeared necessary or convenient. In general, however, the Government was expected to direct and co-ordinate economic activities, rather than to compete with private enterprise.

---

[6] Colombia, *Informe del Ministro de la Economía Nacional al Congreso de 1946* (Bogotá, 1946), pages 5 and 8.

Decree 1,439 contained a list of basic industries and processed raw materials which had not been adequately developed by private initiative and capital and which were to receive special attention and preferential consideration under the industrial plan. These included the steel industry, metallurgical industries in general, coal, ceramics, caustic soda and similar products, sulphuric acid and similar chemicals, fertilizers, animal feed, fungicides and insecticides, cellulose, tanning extract, fibres, fruit canning, wool, fisheries, dairies and other industries. The list could be supplemented by the Government when it appeared desirable.

The decree provided tax exemptions for enterprises in which the Government or the Industrial Development Institute (*Instituto de Fomento Industrial*), described below, subscribed at least 20 per cent of the capital, and for enterprises which were established in compliance with stated requirements relating to type of production, capacity and technical standards. In some cases, exemptions were to be granted only to the first enterprise which fulfilled the requirements; in other cases, to the first three new enterprises; and in still other cases, to all enterprises which complied with the conditions. Granting of such exemptions to newly created enterprises was made subject to study and experiment, and was to depend on the circumstances of the specific cases that were presented for consideration.

D. Direct Governmental Action

Several provisions for direct governmental action in the field of economic development were contained in Decree 1,157. A very important provision created the Industrial Development Institute, which played a significant role in the economic development of Colombia. The decree also provided that the official agricultural credit institutions, as well as the Industrial Development Institute, should grant necessary credits and, in general, operate in accordance with the directives of the general plan. It further provided that the Agricultural, Industrial and Mining Bank should give preference to loans for the purchase of machinery, fertilizers, insecticides, seeds, pumps, veterinary equipment and other items which the Ministry of National Economy deemed necessary for carrying out the general plan.

The Ministry of National Economy was authorized to cultivate experimental crops, to establish laboratories and pilot plants and to install, or promote the installation of, processing machinery, warehouses and plants for the conservation of products within the development plan. The Ministry was further authorized to create study groups or commissions, to send personnel abroad and to contract for the services of technical firms or of individual experts and technicians, both national and foreign.

The Government was further authorized to permit settlement of idle land in the national domain by farmers who would cultivate the products envisaged by the plan, to grant credit to producers through co-operatives and to guarantee credits obtained by producers on their own behalf.

Other authorizations provided in the decree included the right of the Government to regulate concessions for hydraulic energy and to undertake irrigation and drainage for attaining the objectives of the plan.

To cover the expenses involved in the development programmes, Decree 1,157 placed at the disposal of the Ministry of National Economy a revolving fund (*Fondo Rotativo*) with an initial appropriation of 500,000 pesos. The law provided that the fund would receive governmental proceeds from the sale of products grown on government-owned experimental farms, from the rental of government-owned agricultural machinery and equipment and from payments for crops raised for the Government's account or under contract.

Decree 1,157 contained several provisions designed to co-ordinate the execution of the general plan for economic development. It provided that the Ministry of National Economy should be consulted by other Government agencies in matters concerning economic activities contemplated in the plan. In order to safeguard the country's productive activities, the Ministry of Foreign Relations was to submit drafts of projected international commercial agreements for the consideration of the Ministry of National Economy. Similarly, the National Transportation Council (*Consejo Nacional de Vías de Comunicación*) was to submit projects for the construction of highways, railways and aerodromes for the approval of the Ministry of National Economy.

The decree also authorized the Ministry of National Economy to intervene in the deliberations of the National Rate Commission (*Comisión Nacional de Tarifas*) and to propose modifications in transportation rates. In addition, all resolutions of the Office of Exchange and Export Control (*Oficina de Control de Cambios y Exportaciones*) concerning products involved in the general development plan were to be approved by the Ministry of National Economy in order to become valid.

1. *National Economic Council*

As a means of attaining co-ordination, the decree provided for the reorganization of the National Economic Council (*Consejo Nacional Económico*) which had been created by Law 23 of 1931.

The original objective in creating the Council was to unify and direct Government activities concerned with production and consumption. Almost all members of the Council were representatives of the Government or of official institutions. With the reorganization of the Council under the decree, its functions became closely related to the objectives of the general plan, and its scope and structure were greatly broadened to embrace all sectors of the national economy.

As reorganized by Decree 1,438 of 18 July 1940,[7] the National Economic Council became an organ for consultation, planning and general co-ordination, based on the principle of collaboration between the Government and private economic groups.

Among the principal functions entrusted to the Council by Decree 1,438 were the study of questions submitted by agencies of the executive and legislative branches of the Government or by individuals and organizations, and the co-ordination and planning of national economic activities, including recommendations to executive agencies. Although the Council continued to function under Decree 1,438, by 1948 its activities were chiefly in the nature of adviser to the President of Colombia.

The eighteen members of the Council, according to the 1940 reorganization decree, were to be the Minister of National Economy, to act as its president; the Ministers of Foreign Relations, Finance and Public Credit, Labour, Health and Social Welfare; the managers of the Bank of the Republic, the Agricultural, Industrial and Mining Bank and the National Federation of Coffee Growers; and one representative of each of the following groups: agriculture and cattle raising, industry, commerce, banking and insurance, transportation and public services, arts and professions, consumers, agricultural workers, industrial workers and salaried employees.

Decree 1,438 provided for seven permanent committees of the Council, to be presided over by the Minister of National Economy: agriculture and cattle raising; industry; commerce; banking and insurance; transport; public services; and arts and professions.

The decree also provided for the creation of regional economic committees, to be formed in each of the country's provinces (*Departamentos*). The functions of these committees were to be similar to those of the National Economic Council. The membership of each of the provincial committees consisted of the governor of the province; its secretary of finance; the branch manager of the Agricultural, Industrial and Mining Bank; and one representative each of agriculture and cattle raising, of industry and of commerce. The three latter members were to be chosen by the associations concerned.

To facilitate the work of the Council and of the provincial committees, the law provided that municipal economic committees should be organized to function in municipalities selected by the National Economic Council. These municipal committees consisted of local authorities and of representatives of agriculture and cattle raising, industry and commerce. The decree conferred the status of legal entities (*personería jurídica*) on the municipal committees and provided that they could be charged by the Government with the promotion of campaigns to further the purposes of the general plan.

---

[7] Colombia, *Informe del Ministro de la Economía Nacional* (Bogotá, 1940), vol. 1, pages 245 to 248.

According to the decree, the Government might convoke plenary conferences of the National Economic Council, with participation by its members and two representatives of each of the provincial committees. The governments of the provinces might similarly call for provincial committee conferences to be attended by the members of the respective provincial committee and one representative of each of the municipal committees.

2. *National Petroleum Council*

The National Petroleum Council (*Consejo Nacional de Petróleos*) was created by Law 31 of 5 December 1946[8] as a technical and advisory body attached to the Ministry of Mines and Petroleum.

The Law provided that the regular functions of the Council should include the following duties:

(*a*) To serve the Government as a technical and consultative body, for the better orientation, development and realization of plans and activities relating to the petroleum industry;

(*b*) To elaborate plans and projects suggested by the Ministry of Mines and Petroleum, as well as those which, on its own initiative, it considered necessary and convenient for the development and regularization of the petroleum industry;

(*c*) To advise the Government on the orientation of petroleum policy in the economic, administrative, fiscal and commercial fields, taking into account both the internal and the international aspects; and

(*d*) To propose financial measures that appeared necessary for the preparation and execution of plans and projects contemplated by the present law.

Under the law which created the National Petroleum Council, the Government was empowered to negotiate domestic or foreign loans in order to execute plans recommended by the Council for the development of the petroleum industry, after their approval by the Cabinet. In the case of foreign loans, the approval of the Congress was also required.

The Council was to be composed of five full-time councillors, Colombian by birth and experts in the field. The councillors were not to be permitted to hold positions with private organizations or with national, provincial or municipal governments. They were also prohibited from having a private interest in any petroleum corporation, acquiring or possessing shares in such enterprises and participating in any business connected with the petroleum industry in any way. Further, they were not permitted to make contracts with the Government nor to advocate cases of individuals before any judicial or administrative body.

The salary of a member of the Council was made equal to that of a minister of the Cabinet. The councillors were to be nominated by the

---

[8] Colombia, *Diario Oficial*, 10 December 1946 (Bogotá), pages 889 and 890.

Congress, the President of the Republic or the Cabinet. Executive Decree 3,509 of 5 December 1946 provided that one expert in petroleum legislation was to be appointed by the Senate; one expert in the petroleum industry was to be nominated by the House of Representatives; one economic and financial expert was to be appointed by the Cabinet; and two experts in business administration were to be appointed by the President of the Republic.[9]

The Council began to function early in 1947. Its meetings were closed, and its resolutions were published only when the Minister of Mines and Petroleum deemed it advisable.

E. PROPOSED FIVE-YEAR PLAN[10]

A five-year plan (*Plan Quinquenal*) for economic reconstruction and development was presented to the Congress of Colombia during its 1948 session, but action was postponed to a later session. Its purpose was to offer an immediate and adequate solution to the economic problems affecting the well-being of the population. To that end the Government was to be authorized to issue regulations and to finance and execute the provisions of the plan.

A Committee of Organization and Supervision (*Comité de Organización y Vigilancia*) was to be established to study the financing, regulation and launching of the plan and to provide for control of its execution. The proposed composition of the Committee was as follows: one representative of the Senate, one representative of the House of Representatives, the Ministers of Foreign Relations, Finance, Labour, Mines and Petroleum, Economy, Agriculture and Public Works; and a delegate from each of the following: the National Federation of Coffee Growers (*Federación Nacional de Cafeteros*), the National Confederation of Labour (*Confederación Nacional del Trabajo*), the National Association of Manufacturers (*Asociación Nacional de Industriales*), the National Federation of Merchants (*Federación Nacional de Comerciantes*), the Agricultural Societies (*Sociedades de Agricultura*) and the banks.

As originally drafted, the plan was to become effective on 1 January 1949. Its major features, as contained in the proposed law, follow:

(*a*) Special programmes were contemplated in various fields, such as irrigation, manufacture and distribution of fertilizers, soil control and education of farmers (article 5). A gradual reduction of at least 75 per cent in the importation of certain basic foodstuffs was to be undertaken by the Government within the coming years (article 4);

---

[9] Colombia, Ministerio de Hacienda y Crédito Público, *Proyecto de Presupuesto de Rentas y Ley de Apropiaciones para el Periodo Fiscal de 1° de enero a 31 de diciembre de 1948* (Bogotá, 1947), page 160.

[10] *El Mes Económico y Financiero,* September and October 1948.

(*b*) The Government was to be authorized to regulate the planned development of land adequate for the production of wheat, cocoa, oats and cotton, in order to avoid its use for less important crops (article 6);

(*c*) A campaign to replace poor and unproductive species of certain agricultural products was to be carried out; selected seeds were to be distributed free during the campaign (article 7);

(*d*) Towns and townships were to receive unused lands which appeared suitable for cultivating seeds for the production of vegetable oils and fats (article 8);

(*e*) The Agricultural, Industrial and Mining Bank was to receive from the Government the necessary capital requirements to carry out its functions (article 11);

(*f*) In order to diversify and reduce the price of food, and at the same time supply an important raw material, the Agricultural, Industrial and Mining Bank was to be authorized to import sheep in large quantities (article 18);

(*g*) The Government was to establish or assist in the establishment of packing houses (article 20);

(*h*) A Bureau of Co-operatives (*Dirección General de Cooperativas*) was to be created, in which all official agencies responsible for the development, organization, financing and control of co-operatives were to be centralized (article 12);

(*i*) A Federation of Coal Producers (*Federación de Productores de Carbón*) was to be organized by the Government, which was to be a member of the Federation; the production of coal for the export market was to be stimulated by the Federation (article 21);

(*j*) The Government was to take measures to ensure that the Paz del Río steel mill (*Empresa Siderúrgica de Boyacá*) would be in operation by 1951 and at full productive capacity in the final year of the plan (article 26);

(*k*) Congress was to pass laws to expand the production of petroleum (article 32);

(*l*) The exploration of radioactive deposits was to be intensified (article 39);

(*m*) All phases of fishing and the fishery industry were to be stimulated (article 57).

The proposed Committee of Organization and Supervision was to draw up rules and regulations for the purpose of carrying out the proposed law. This committee was to present to the Congress of 1951 a report of its work, including recommendations for correction, modification or extension deemed desirable.

To finance the proposed plan the Government was to be authorized to contract for a loan up to 200 million pesos to be distributed approximately as follows (in millions of pesos):

Iron and steel industry	50
Road construction	25
Irrigation works	15
Hydro-electric plants	15
Railway stock and track development	15
Port development and modernization	13
Coal industry	10
Agricultural development	10
Bureau of Co-operatives	10
Institute of Immigration and Colonization	10
Gold-mining	5
Fertilizer manufacture	5
Livestock development	5
Fishery development	2
Administration of first five-year plan	5

The total loan for financing the proposed plan was to be divided into two equal parts: 100 million pesos, to be secured abroad, for the purchase of foreign equipment and machinery; and the remaining 100 million pesos to be obtained by an internal loan. For the latter, it was proposed that each industrial establishment, bank or other type of enterprise with capital over 100,000 pesos subscribe to bonds of the first five-year plan in proportion to the total amount of its reserves, according to a suggested schedule.

The bonds of the loan for the proposed first five-year plan were to yield 4 per cent yearly. Profits accruing to the Government from various industries, such as steel, coal, fertilizer and hydro-electric plants, were to be used for the amortization of the bonds.

II. Principal agencies for economic development

A. INDUSTRIAL DEVELOPMENT INSTITUTE

The creation of the Industrial Development Institute (*Instituto de Fomento Industrial*) was the most important step undertaken by the Colombian Government to promote the economic development of the country.

The Institute was created by Decree 1,157 of 11 June 1940, which also contained the general plan for national economic development referred to above. The purpose of the Institute was to foster enterprises for developing the basic industries and the processing of domestic raw materials which had not been accomplished satisfactorily by means of private initiative and capital.[11]

In accordance with Decree 1,157, the administration of the Institute was entrusted to a board of directors composed of the following members: the Minister of National Economy, who was the chairman; two members appointed by the President of the Republic; two representatives of the Central Mortgage Bank; and a maximum of three additional members, elected by the commercial banks and by private individual stockholders.

---

[11] Colombia, Ministerio de la Economía Nacional, *El Plan de Fomento de la Economía Nacional* (Bogotá, 1940).

The Institute was made subject to inspection and supervision by the superintendent of banks (*Superintendencia Bancaria*).

1. *Method of operation*

Decree 1,157 empowered the Government to contribute capital for the establishment and expansion of industries of national interest. Such Government contributions were to be made through the Industrial Development Institute.

According to the decree, the Institute was authorized to subscribe at least 51 per cent of the capital of any enterprise in which it participated. In addition, by Decree 585 of 1942, the Institute was authorized to establish and exploit industries of great national interest with its own resources.[12] The shares acquired by the Institute might be sold, so long as their sale did not impede the objectives for which the enterprises were established.

To implement its programme of action, the Institute organized a department to prepare plans for industrial projects, with special attention to their technical and economic aspects. The Institute also utilized the services of foreign technical firms in the preparation of its projects.

2. *Capital resources*

Decree 1,157 provided for a minimum capitalization of 4 million pesos for the Industrial Development Institute; of this, 3 million pesos was to be provided by the Government and the remaining 1 million pesos by the Central Mortgage Bank. Additional capital might be subscribed by commercial banks, private investors and official or private organizations.

The Institute started operations with a capital of 2.67 million pesos, three-fourths subscribed by the Government and one-fourth by the Central Mortgage Bank. In 1942, the capital was raised to 4 million pesos; the Government and the bank increased their shares in proportion to their initial holdings.

According to the balance-sheet for 30 June 1944, the Institute's capital amounted to 7 million pesos, of which 6 million was paid in. This amount, also shown in the balance-sheet for 30 June 1948, was considered by the Government too small to permit the Institute to discharge its functions adequately, and an increase in the Institute's capital was therefore contemplated.[13]

The Institute in only a few cases obtained funds from outside sources for the establishment of vital industries. It was able to do this in the case of a plant to manufacture chemical products derived from salt, for which the Bank of the Republic provided funds. Again, in the case of the establishment of a steel mill at Paz del Río, discussed below, the Government authorized and guaranteed a public loan of 10 million pesos.

---

[12] Colombia, *Memoria del Ministro de la Economía Nacional al Congreso de 1942* (Bogotá, 1942), page 71.

[13] Colombia, Superintendencia Bancaria, *Informe, 1946* (Bogotá), page xxx; *Informe, 1948*, page 112.

The Institute also had occasion to participate with foreign capital in the reorganization of a shipbuilding enterprise and in the installation of a tire factory. The Institute favoured this type of capital participation particularly for industries which required relatively large investment. In this respect, the policy of the Institute favoured a type of participation in which foreign capital contributed equipment and technical assistance to the establishment of new industries but left the enterprises under the control of domestic capital.

In general, the activities of the Institute involved relatively large investment and deferred returns. The enforced freezing of its investments made it increasingly difficult for the Institute to expand its activities. As a rule, the Institute could sell its subscribed stock and utilize the proceeds for other undertakings only after an enterprise proved successful. The urgent need to convert its stock into capital sometimes prevented the Institute from receiving dividends and from profiting by increases in the value of stock.[14]

In view of the need for State collaboration with private initiative in the planning of enterprises indispensable to industrial development, the President of the Republic, in a message to Congress, stressed the importance of strengthening the Institute in order that it might be able to further two fundamental projects: the steel mill at Paz del Río and the plant for the manufacture of chemical products derived from salt, discussed below.[15]

3. *Investments*

According to the balance-sheets of the Industrial Development Institute, the largest part of its investment was in industrial stocks. The Institute held industrial stocks to a total value of 3,030,870 pesos on 30 June 1946 of 3,680,920 pesos on 30 June 1947 and 4,031,900 pesos on 30 June 1948. The industrial enterprises in which the Institute invested funds are shown below.

It was estimated that on 30 June 1947 the stock held by the Institute was subject to an estimated depreciation of 1,129,280 pesos, the net difference between estimated losses on investment in some of the companies listed above, and potential profits on the stocks of others, thus reducing the value of the Institute's investments in industrial stocks to 2,551,640 pesos. On 30 June 1948 the estimated depreciation amounted to 1,114,200 pesos, reducing the value of the investments in industrial stocks from 4,031,900 to 2,917,700 pesos.

---

[14] Instituto de Fomento Industrial, *Informe del Gerente, 1946* (Bogotá).

[15] Colombia, "Mensaje Presidencial al Congreso de 1947", *Diario Oficial*, 24 July 1947 (Bogotá), page 256.

INVESTMENTS OF INDUSTRIAL DEVELOPMENT INSTITUTE
BY INDUSTRIAL ENTERPRISE, 1946, 1947 AND 1948
(In thousands of Colombian pesos)

Enterprise	*1946*	*1947*	*1948*
Industria Colombiana de Llantas, S.A. (tires)	461.2	380.4	453.3
Industria del Mangle, S.A. (tanning extract)	451.6	451.6	451.6
Industria Colombiana de Leches, S.A. (dairy industries)	327.5	327.5	314.4
Consorcio Industrial de Santander, S.A. (several industries)	250.0	250.0	420.0
Industria Colombiana de Abonos, S.A. (fertilizers)	250.0	250.0	250.0
Unión Industrial y Astilleros Barranquilla "Unial" (shipbuilding)	243.2	307.6	366.0
Industria Química Colombiana, S.A. (chemicals)	218.7	218.7	218.7
Central Metalúrgica del Tolima, S.A. (metallurgy)	200.0	200.0	200.0
Industria Minera y Metalúrgica Colombiana, S.A. (metallurgy)	176.3	176.3	176.3
Compañía Nacional de Cloro y sus derivados (chemicals)	175.0	268.7	268.7
Empresa Siderúrgica, S.A., Medellín (iron and steel)	62.4	24.0	24.0
Compañía de Productos Alimenticios, "El Papagayo" (foodstuffs)	58.5	58.5	58.5
Compañía Industrial de Caldas, S.A. (several industries)	50.0	50.0	—
Industria Fiquera Colombiana, S.A. (fibres)	50.0	50.0	50.0
Maderas "La Industria" (wood)	31.2	82.9	91.2
Vidriera Colombiana, S.A. (glass)	16.7	—	—
Compañía Minera de Playas (mining)	8.5	8.5	8.5
Compañía de Products Químicos "Sulfacido" S.A. (chemicals)	—	—	99.5
Industria Colombiana de Pesca Marítima, S.A. (fishing)	—	150.0	150.0
Industria Química de Paipa, S.A. (chemicals)	—	426.2	426.2
Instituto Nacional de Aprovechamiento de Aguas y Fomento Eléctrico (water and electric power)	—	—	5.0
Total outstanding investments in industrial stocks	3,030.8	3,680.9	4,031.9
Net loss	—	1,129.3	1,114.2
NET VALUE OF INVESTMENTS	3,030.8	2,551.6	2,917.7

Source: Colombia, Superintendencia Bancaria, *Informe, 1946,* page xxx; *Informe, 1947,* page xlix; *Informe, 1948,* page lviii. Data are for years ending 30 June.
—Nil.

The Institute's principal investments in industrial and other projects amounted to 9,887,000 pesos on the 30 June 1948 balance-sheet. Investments during the four-year period are shown below.

Besides the depreciation in the value of industrial stocks, referred to above, the investments listed for 30 June 1947 were also reduced by a loss of 183,343 pesos in loans to industrial enterprises and of 157,232 pesos in enterprises studied and operated on the initiative of the Institute.

INVESTMENTS OF INDUSTRIAL DEVELOPMENT INSTITUTE
BY TYPE, 1945, 1946, 1947 AND 1948
(In thousands of Colombian pesos)

Type	*1945*	*1946*	*1947*	*1948*
Industrial stock	2,469	3,031	2,552	2,918
Loans to industrial enterprises	526	503	355	..
Study and operation of enterprises[a]	2,120	2,717	2,555	6,969
TOTAL	5,115	6,251	5,462	9,887

Source: Colombia, Superintendencia Bancaria, *Informe, 1947,* page 111; *Informe, 1948,* page 112. Data are for years ending 30 June.

.. Not available.

[a] Including Paz del Río steel mill *(Empresa Siderúrgica de Boyacá),* for which reported investments in 1948 amounted to 6,776,734 pesos.

4. *Activities*

The Industrial Development Institute was considered a principal factor in the industrial development of Colombia. The activities of the Institute followed the pattern set forth in the industrial development plan established by Decree 1,439 of 1940, referred to above.

The Institute studied the industries mentioned in the plan and, in addition, took practical initial steps in some sectors of industry. Its functions were not limited to industries noted in the plan; other private enterprises were also the object of the Institute's attention and support when their activities coincided with the purposes for which the Institute was created.[16]

The following brief summary outlines the principal activities of the Institute.[17]

Steel industry. The Institute undertook the establishment of a steel industry on a national scale, with the objective of meeting the major needs of the country for iron and steel and their by-products.

The possibility of establishing a steel industry in Colombia had received special consideration even before the creation of the Institute. By Law 97 of 24 August 1938, the Congress had authorized the Government to take necessary steps to establish its own iron and steel foundries and factories for the manufacture of iron and steel products and to participate financially in private enterprises engaged in these activities. Legislative Decree 1,157 of 1940 authorized the Government to guarantee any obligations which the Institute might incur in the establishment of the industry. The industrial development plan, established by Decree 1,439 of 18 July 1940, listed the steel industry first among the basic industries which were to receive special attention.

When the Institute began to operate, the establishment of an iron and steel industry became one of its principal considerations. After some study, the Institute established the enterprise in the municipality of Paz del Río, in the Department of Boyacá, where raw materials were accessible in sufficient quantity. The site was also considered convenient for distribution of products to domestic centres of consumption. These and other favourable circumstances led the Institute officials to believe that the future steel industry of Colombia would be able to produce iron and steel at competitive prices. However, because of the magnitude of the undertaking, the Institute expected the adoption of a protective policy by the Government, and counted on the full co-operation of all official and semi-official organizations and of the public.

---

[16] Colombia, Instituto de Fomento Industrial, *Balance e Informes, 1944* (Bogotá).

[17] Based mainly on data issued by the organization: Instituto de Fomento Industrial, *Balance e Informes,* 1943 and 1944; and *Informe del Gerente, 1946.*

In this connexion, the Institute advocated a series of measures to allow the steel industry to become firmly established. The measures included "a reasonable increase in customs duties; privileges in connexion with the transportation of domestic iron products to existing or future consumption centres; tax exemption for a reasonable period of time; and preferential use of such products by official agencies, when these products are of the same quality as similar foreign products".[18]

Analysis of the Boyacá iron deposits by the Institute showed the following content: iron, between 45 and 50 per cent; silica, between 6 and 15 per cent; phosphorous, approximately 1 per cent; and sulphur, less than 0.05 per cent. The analysis revealed the absence of such adverse elements as chrome, nickel and titanium. The known deposits extended over 17 kilometres and were estimated at 40 million tons of iron ore. Data published by the Institute indicated the existence of coal of an economically satisfactory quality in large quantities. The limestone deposits in the vicinity of the site were considered of the highest quality.

The Institute anticipated no difficulty in obtaining sufficient man-power in the surrounding municipalities, which had an estimated population of 110,000. The Institute planned to adopt a policy that would avoid drain on the man-power employed on the small farms of the region.

The proposed steel mill was to have a productive capacity of well over 100,000 tons per year. This production goal was expected to meet current domestic consumption needs as well as the requirements of future expansion, since the per capita consumption of iron and steel in Colombia was barely 15 kilogrammes per annum.

As a result of its study of the domestic consumption of iron and steel products from 1936 to 1945, the Institute concluded that the national steel industry would have an internal market for 84,000 metric tons a year of bars, wire, sheets, structural steel, tin-plate, cast iron and other products. Imports of iron and steel products into Colombia fluctuated greatly during the war, but during the three-year period from 1944 to 1946, imports of iron and steel tubes and iron and steel in other forms amounted to a yearly average of 79,000 metric tons.[19] The planned productive capacity of the steel mill took into account projects for extending the railway network, as well as the aqueduct and sewer projects being constructed by the Municipal Development Fund—projects which call for appreciable quantities of rails and tubes.

---

[18] Colombia, Instituto de Fomento Industrial, *Informe del Gerente, 1946,* page 25.

The cost of the complete installation of the mill was calculated at 50 million pesos (approximately US$28.5 million). The project was expected to be in full production in 1953.

To meet the initial costs of installing the steel mill, the Government, by Decree 2,995 of 1945, authorized the Institute to float an issue of industrial development bonds (*Bonos de Fomento Industrial*) up to 10 million pesos (approximately US$5.7 million), amortizable in twenty years, with an interest rate of 6 per cent per annum.[20] These bonds were guaranteed by the Government, and their proceeds were to be used exclusively to finance the construction of the steel mill at Paz del Río. On 30 June 1948, the total sale of the bonds amounted to 6 million pesos. The Government was to service the loan so long as the Institute did not possess the means to do so. According to the law, profits realized from the steel mill were to be utilized first to reimburse the Government for the sums expended by it on loan service.

In his 1947 message to Congress the President of the Republic made special reference to the establishment of an iron and steel industry, which he considered a basic necessity for Colombia and a national aim of the greatest importance.[21] Some months later, the Paz del Río steel mill (*Empresa Siderúrgica de Boyacá*) was created pursuant to Law 45 of 15 December 1947.

This company, a semi-official autonomous organization, has independent legal status (*personería jurídica autónoma*). It was capitalized at 100 million pesos (approximately US$57 million), of which the Government was to subscribe at least 51 per cent. The law authorized the Government to subscribe the total capital of the company if private interests, domestic or foreign, did not subscribe and pay at least 20 per cent of the capital. In such case, the law authorized the Government to change the company's status from semi-official to official.

The law also provided that the Government should appropriate funds according to the needs of the organization, with the approval of the Industrial Development Institute. Starting in 1948, the national budget was to include annual appropriations of 10 million pesos until the amount of capital to be subscribed by the Government was furnished.

The Government was authorized to negotiate for domestic or foreign loans to finance the organization, and the Industrial Development Institute was empowered to issue bonds up to 10 million pesos a year for five years at an interest rate of 6 per cent per annum, amortizable in twenty years. The bonds were to be guaranteed by the Government, which was also to service the loans. The law limited the amount of foreign loans to the value of the imported equipment and materials required for the fulfilment of the organization's purposes.

---

[19] Colombia, Contraloría General de la República, *Anales de Economía y Estadística,* March and April 1947, page 86.

[20] Colombia, *Memoria de Hacienda, 1946* (Bogotá), vol. II, page 125.

[21] Colombia, "Mensaje Presidencial al Congreso de 1947," *Diario Oficial,* 24 July 1947 (Bogotá), page 256.

The balance-sheet of the Paz del Río steel mill was as follows on 30 June 1948 (in thousands of Colombian pesos):[22]

ASSETS:		
Cash and bank deposits		1,789
Imports in transit		93
Machinery, materials and equipment		791
Real estate and permanent construction		670
Studies and technical projects		540
Administrative and general expenses		1,915
Other assets		1,061
TOTAL		6,859
LIABILITIES:		
Funds made available by the Industrial Development Institute		160
Balance to reimburse, 30 June 1948	38	
Cost of studies for Paz del Río	122	
Income from investment in securities		142
Industrial development bonds		6,475
Balance of bonds issued on 30 June:		
Class A issue of 1946	2,834	
Class B issue of 1948	2,980	
Claim in favour of Government for service of loan:		
Class A issue of 1946	578	
Class B issue of 1948	83	
Balance in favour of various creditors		82
TOTAL		6,859

The Institute participated actively, with both capital and technical assistance, in the organization of another steel enterprise of much smaller scope, the steel mill of Medellín (*Empresa Siderúrgica, S.A., Medellín*). This mill had been in operation before 1944, when the capital of the company was increased to 8 million pesos in order that it might expand its plant and extend its activities to include the production of cement. The company then undertook the construction of *El Cairo* factories, which were expected to have a daily capacity of 600 tons of cement.

Chemical products. In 1948, considerable progress had been made in constructing a factory in Zipaquirá for the production of chemical products derived from sodium chloride.

The organization of such an industry had been contemplated since 1936. In 1941, the contract to establish the enterprise was signed by the central Government, the Bank of the Republic and the Industrial Development Institute. According to the terms of the contract, the latter was charged with developing the enterprise. The Government assumed responsibility for participating in the capitalization, which was estimated roughly at 4 million pesos.

---

[22] Colombia, Superintendencia Bancaria, *Informe, 1948* (Bogotá), page 113.

The factory was expected to have an initial daily capacity of 35 tons of soda ash, of which 15 tons was to be used in the manufacture of 10 tons of caustic soda, and 4 tons was to be used in the production of bicarbonate of soda. The project was designed in such a way that productive capacity could be doubled by means of a small additional investment.

The Government was greatly interested in the establishment of this industry, because of its possible fundamental role in the domestic economy. In his 1947 message to Congress, the President of the Republic indicated that the daily productive capacity of the plant was expected to include 200 tons of refined salt, 100 tons of sodium carbonate, 25 tons of caustic soda, 5 tons of electrolytic soda and 5 tons of chlorine.

The restrictions which the war imposed on the importation of chlorine caused the Institute to join with the municipal aqueduct of Bogotá to found the Colombian Chlorine Products Company (*Compañía Colombiana de Cloro y sus Derivados*) in 1942. The capital of this company, originally amounting to 200,000 pesos subscribed by the Institute and the aqueduct in equal parts, was augmented on several occasions, to reach 600,000 pesos. The factory began production in 1944 and furnished chlorine in liquid form to various local industries, for water purification and for use in the manufacture of caustic soda. When completed, the factory was expected to have a monthly output of 5 tons of liquid chlorine, 20 tons of iron chloride, 25 tons of caustic soda and 8 tons of calcium hypochlorite.

The Institute participated actively in the Chemical Products Company (*Compañía de Productos Químicos "Inquico"*), which produced mineral pigments, dyes and other raw materials used in the leather tanning industry; chemical products derived from wood; and other products.

The shares of the company, which had been controlled by enemy capital, were acquired during the war by the Stabilization Fund (*Fondo de Estabilización*), which joined the Institute in developing the industry.

In association with the province of Boyacá and with the provincial Institute for Agricultural, Livestock and Industrial Development, the Industrial Development Institute undertook the development of the Industrial potentialities of the thermo-mineral springs of Paipa. For this purpose, a company was formed with a capital of 1 million pesos; its products included sodium silicate, sodium sulphate, potassium chloride and other salts.

The Institute also contributed to the sulphuric acid industry, through the National Chemical Products Company (*Compañía Nacional de Productos Químicos "Sulfacido"*), which had been in existence in Medellín since 1941. This company's production had increased in recent years, and since it was considered in sound condition, the Institute placed its share of the company's stock on the market.

Fertilizers. The urgent need to expand production of the principal foodstuffs and of raw materials for industry caused the Institute to promote the organization of the Colombian Fertilizer Industry, Incorporated (*Industria Colombiana de Abonos, S.A.*). This enterprise was organized in 1945 with a capital of 500,000 pesos, subscribed by the Industrial Development Institute, the Agricultural, Industrial and Mining Bank and the Central Mortgage Bank.

The Institute estimated that the principal crops—potatoes, wheat, sugar-cane, rice and cotton—required 140,000 tons of fertilizer and 260,000 tons of lime per year. However, because many farmers were not familiar with the proper use of fertilizer, initial annual production for the new industry was placed at 40,000 tons of fertilizer and 120,000 tons of lime, to be manufactured in three factories situated in different parts of the country.

According to the latest available information, there was some difficulty in obtaining domestic raw materials to yield phosphorus and potassium in adequate quantities. It was expected, however, that approximately 24,000 tons of slag would be made available annually as a by-product of the steel mill referred to above.

Shipbuilding. In 1943, the Institute reorganized a shipbuilding company in Barranquilla, later called the *Unión Industrial y Astilleros de Barranquilla "UNIAL"*. In 1944 the capital of the company was increased to 1 million pesos, of which 40 per cent was subscribed by United States firms. Subsequent increases, to which the Institute contributed, raised the company's capitalization to over 4 million pesos in 1947; in that year it paid dividends.

A wide programme of expansion and improvement was begun towards mid-1945. The company aided in the navigation of the Magdalena River and the rivers of southern Colombia by building river boats. It also built a number of small maritime vessels. In 1947 the company's production could not keep abreast of increased orders.

The company employed a staff of foreign technicians and attempted to increase the number of national specialists.

Tanning extracts. To put the great Colombian reserves of mangrove trees on the Pacific coast to use, the Institute created a tanning extract company, the *Industrias del Mangle, S.A.*, which was installed in a factory with modern equipment. The factory began operations in 1944 and had a daily productive capacity of eight tons of tanning extract. Nearly all of its production was consumed domestically, and only a small surplus remained for export. The company was capitalized at 900,000 pesos.

Tires. In October 1945, the factory of the *Industria Colombiana de Llantas, S.A.* began production with a capacity of 6,000 tires a month. The company received technical and financial assistance from a large firm in the United States. The tires were considered superior in quality and were extremely useful to the country at the time of the stringent tire shortage resulting from the war.

The Institute considered the new company sound and placed its shares of common stock on the market, retaining only the special shares which allowed it to maintain administrative control. By 30 June 1948 the company had successfully completed the first phase of its activities and began to expand its installations in order to increase its production considerably. The new industry stimulated the extraction of wild rubber and was considered an important step in the development of the nation's economy.

Other industries. The Institute developed various other enterprises in the industrial field, either by creating new industries or by aiding the reorganization or expansion of previously established enterprises. Among them were enterprises in the wood industry, wool yarn manufacture, production of milk foods and other foodstuffs, glass, fibres, coal, fisheries, manioc products, alcohol and insecticides.

In connexion with the fishing industry, the Institute in July 1946 organized the National Fishing Company (*Compañía Nacional de Pesca*), with authorized capital of 2 million pesos. This company was formed by the Institute, the National Government, the National Supply Institute and the province of Valle del Cauca. The company was to study marine life, fishing zones, fishing equipment, boats, factory locations, markets and possibilities for export.

The Institute was also engaged in other fields: it studied the possibilities of large-scale coco-nut production and industrialization of the production of tallow, oleomargarine and other fats; the manufacture of organic acids and the production of sulphuric acid from iron pyrites; the utilization of arsenical minerals; the production of insecticides, using rotenone as a base; and the manufacture of sulphur, cellulose and explosives.

Development of mining. The Institute also laid the groundwork for developing the mining of non-ferrous metals. A concrete step in this field was the establishment of the Colombian Mining and Metallurgical Company (*Industria Minera y Metalúrgica Colombiana, S.A.*), which provided the Institute with valuable experience regarding possibilities for processing zinc, lead, arsenic and other minerals.

The Institute similarly fostered the establishment of the Tolima Central Metallurgical Company (*Central Metalúrgica del Tolima, S.A.*), in association with the province of Tolima, the municipality of Ibagué and private investors. A plant was established for concentrating the mineral ores found in the region. The concentrates were to be used for metallurgical processing by other enterprises to be organized in the region, or by the Tolima Central Metallurgical Company itself.

These two enterprises were expected to contribute greatly to the mining development of the regions concerned and, particularly, to open new prospects for mining activities in Colombia, which has traditionally engaged in the exploitation of precious metals.

Other activities of the Institute in the field of mining included study, prospecting and exploitation of coal-mines. In addition to coal destined for the Paz del Río steel mill, referred to above, the Institute undertook the extraction of coal on a small scale and considered the possibilities of using coal for electric power.

Regional development. The Industrial Development Institute initiated industrial combinations or partnerships (*consorcios*) for developing regional resources, with participation by the Institute, provincial governments, municipal governments and industrialists. By this means, the Institute expected to overcome one of its greatest difficulties—the need for simultaneous study of the possibilities and necessities of the country's various regions.

One example of this type of agreement was the Santander industrial combination (*Consorcio Industrial de Santander*), established in March 1944; its membership comprised the Institute, the province of Santander and a group of industrialists. The capital of the combine originally amounted to 600,000 pesos and was later increased to 2.5 million pesos. The varied programme for the state of Santander included the installation of a factory for fats and vegetable oils; establishment of a plant for the manufacture of rope and burlap from the native fibre, *fique;* and industrialization of the production of various fruits and manioc products. The activities of the joint venture were also extended to include agricultural development of the products whose output was industrialized. During the fiscal year 1948 the Industrial Development Institute contributed towards an increase in the capitalization of the Santander combine in order to permit the installation of machinery which had previously been imported.

The Institute founded the Caldas Industrial Company (*Compañía Industrial de Caldas, S.A.*) to study the possibility of establishing local industries. The company, which was subsequently liquidated, had a declared capital of 100,000 pesos, subscribed equally by the Institute and a group of investors in the province of Caldas.

An earlier undertaking of similar character was the Tolima Central Metallurgical Company, referred to in the discussion of mining development.

Statement of condition. The financial and economic situation of the Industrial Development Institute, as indicated by its balance-sheets, is shown below.

BALANCE-SHEETS OF INDUSTRIAL DEVELOPMENT INSTITUTE 1944, 1945, 1946, 1947 AND 1948

(In thousands of Colombian pesos)

Item	*1944*	*1945*	*1946*	*1947*	*1948*
ASSETS:					
Deposits in banks	144	586	846	1,931	876
Loans to industrial enterprises	503	526	503	355	—
Various securities	2,929	1,164	2,524	883	619
Industrial stocks	3,190	2,469	3,031	2,552	2,918
Study and operation of enterprises[a]	953	2,120	2,717	2,554	6,968
Real estate	—	—	—	—	11
Other assets	200	874	421	607	583
Unpaid capital	1,000	1,000	1,000	1,000	1,000
Amortizable accounts[b]	180	1	406	2,296	2,077
Profit and loss	—	—	180	—	—
TOTAL	9,099	8,740	11,628	12,178	15,052
LIABILITIES:					
Various creditors	—	—	—	731	73
Debentures payable	490	191	70	—	—
Bonds in circulation	1,453	1,425	4,395	4,284	7,147
Government service for 1946 loan	—	—	—	—	661
Other liabilities	83	12	127	142	151
Capital	7,000	7,000	7,000	7,000	7,000
Legal reserve	20	20	20	20	20
Other reserve	10	20	16	1	—
Profit and loss	43	72	—	—	—
TOTAL	9,099	8,740	11,628	12,178	15,052

Source: Colombia, Superintendencia Bancaria, *Informe, 1946* (Bogotá), page 62; *Informe, 1948* (Bogotá), page 112. Data are for years ending 30 June.

— Nil

[a] Including *Empresa Siderúrgica de Boyacá* (Paz del Río steel mill).

[b] Chiefly depreciation and losses on investments

B. AGRICULTURAL, INDUSTRIAL AND MINING BANK

The bank (*Caja de Crédito Agrario, Industrial y Minero*) was created by Law 57 of 1931. It functioned principally in the interests of agriculture, cattle raising and small industry and was considered of great importance in this role.[23] From the time it was founded, however, it suffered from lack of capital with which to satisfy the need for agricultural and industrial credits.

1. *Capitalization*

On 31 December 1931, its paid-in capital amounted to 2 million pesos. The figures below reflect the increase in its paid-in capital from that date to 30 June 1948.

---

[23] Inter-American Council of Commerce and Production, *Encuesta Continental sobre Fomento y Coordinación de Industrias, Respuesta referente a la República de Colombia* (Montevideo, 1947), page 52.

PAID-IN CAPITAL OF AGRICULTURAL, INDUSTRIAL AND MINING BANK, 1931-1948

(In thousands of Colombian pesos)

Date	*Paid-in capital*
1931 (31 December)	2,000
1932	2,590
1933	2,606
1934	2,601
1935	2,598
1936	3,053
1937	3,384
1938	4,594
1939	4,593
1940	4,798
1941	12,830
1942	13,185
1943	13,385
1944	13,407
1945	13,407
1946	13,407
1947	27,907
1948	32,907

Source: Colombia, *Memoria de Hacienda 1946* (Bogotá), vol. 1, pages 60 and 61; Superintendencia Bancaria, *Informe, 1947,* page 95; *Informe, 1948,* page 97. Data are for 30 June, unless otherwise noted.

The bank's paid-in capital increased substantially in 1941 but remained at practically the same level during the subsequent five years. Although the paid-in capital increased appreciably from June 1946 to June 1948, it still remained far below the authorized capital of 50 million pesos (approximately US$28.5 million) established by Law 46 of 1945, which empowered the Government to conduct whatever operations it deemed necessary to increase the capital of the Agricultural, Industrial and Mining Bank to 50 million pesos.

Government steps to implement the law resulted in two substantial increases in the bank's paid-in capital. The first occurred in 1946, when the Government reduced the capital of the National Supply Institute[24] by 3 million pesos and subscribed to shares in the Agricultural, Industrial and Mining Bank for the corresponding amount; half of the sum had previously been subscribed in the Institute by the National Federation of Coffee Growers, which accepted national debt titles in payment.[25]

---

[24] The National Supply Institute (*Instituto Nacional de Abastecimientos*), an autonomous organization, was established by the Colombian Government to facilitate the production, importation and distribution of the most needed commodities, especially consumer goods. The Institute's purpose was to regulate prices and increase domestic production. It was capitalized at 7 million pesos (approximately US$4 million).

[25] Colombia, *Memoria de Hacienda, 1946,* vol. I, page 61.

The second increase was made under Decree 590 of 18 February 1947, which provided for incorporation into the national budget of 10 million pesos in agricultural credit bonds (*bonos de crédito agrícola*), subscribed by the Colombian Saving Bank.[26] The decree also allocated a corresponding amount to increase the paid-in capital of the Agricultural, Industrial and Mining Bank.

On 30 June 1947, the paid-in capital of the Agricultural, Industrial and Mining Bank, amounting to 27.9 million pesos, was composed of 2,782,411 shares subscribed by the Government, 6,000 shares subscribed by the National Federation of Coffee Growers and 2,343 shares subscribed by private interests—a total of 2,790,754 shares.[27]

On 30 June 1948, the paid-in capital of the bank amounted to 32.9 million pesos, nearly two and a half times the 1946 total of 13.4 million pesos.[28] The Government, under the provisions of various laws and decrees, had contributed 5 million pesos during the fiscal year ending 30 June 1948.

2. *Agricultural Supply Section*

The functions of the Agricultural Supply Section of the bank (*Sección de Previsión Agrícola*) included the procurement of seed, fertilizer, machinery and agricultural tools for sale to farmers at cost. Although sales by the Agricultural Supply Section to farmers during the fiscal year ending 30 June 1947 amounted to 6.2 million pesos, and during the following fiscal year to 9.6 million pesos, the share of capital allocated to this agency was considered inadequate to cover even the minimum needs of farmers. On 30 June 1947, the Agricultural Supply Section had 114 stores and plans for establishing a number of others, with the ultimate purpose of extending the services throughout the country.

3. *Agricultural Development Section*

The major function of the bank's Agricultural Development Section (*Sección de Fomento Agrícola*) was the administration of enterprises financed by a loan of US$10 million granted by the United States Export-Import Bank. The loan was authorized on 1 July 1943 for the acquisition of material, equipment and services to be used for the construction of dams and irrigation projects and for the manufacture of fertilizer.

On 31 December 1947, only US$640,000 had been utilized.[29] The Colombian Government obtained an extension to 31 December 1950 for the use of the remainder and presented a number of proposed projects for the consideration of the Export-Import Bank.[30]

---

[26] Colombia, *Diario Oficial*, 26 February 1947, page 697.

[27] Colombia, *Memoria de Hacienda, 1947,* vol. I, pages 153 to 156.

[28] Colombia, Superintendencia Bancaria, *Informe, 1948,* pages xxxv to xxxvii.

[29] Export-Import Bank of Washington, *Statement of Loans and Authorized Credits as of December 31, 1947.*

Law 80 of 26 December 1946 provided that projects undertaken with this loan were to be furnished from the Revolving Fund for Irrigation and Drainage (*Fondo Rotatorio de Irrigación y Desecación*), created by Law 204 of 1938.[31] This was to be the only use of the revolving fund, according to Law 80, which provided that other projects formerly financed by the fund were to be transferred to the newly created National Institute for Water Utilization and Electrical Development, described below.

Instalments of the loan received to 30 June 1947 were applied to projects for the construction of a dam on the Sisga River to regularize the course of the Bogotá River and to irrigate the valleys of the Coello and Saldana Rivers, in the department of Tolima. Studies were also made of possible further utilization of the Sisga River dam for the installation of a 3,760 horse-power electric plant, as well as for the irrigation of the region surrounding Bogotá.[32]

The Agricultural Development Section continued work on its projects for opening artesian wells, especially in the vicinity of Bogotá.

During the fiscal year ending 30 June 1947, the Agricultural Development Section, which had a contract with the Rubber Reserve Company for buying domestic rubber, purchased 880 metric tons of domestic rubber for distribution among the country's industries. At that date the contract ended, and the Agricultural Development Section's activities with regard to rubber were then limited to the planting and cultivation of rubber trees.

4. *Loan operations*

Despite its lack of resources, the Agricultural, Industrial and Mining Bank, between its inauguration and 30 June 1946, granted 731,890 loans with a total value of 337.2 million pesos. Sectors of the economy which benefited from the loans included the cattle-raising industry, which obtained 157,204 loans totalling 112.6 million pesos, and the coffee growing industry, which received 148,580 loans amounting to 55.3 million pesos by 30 June 1945.[33] The bank's credit policy gave preference to small operators, in order that the benefits to be derived from the credits might be enjoyed by the farmers most in need of them.

The total of new loans made by the bank has risen appreciably since 1943. However, increases were also marked in new loans made by the country's commercial banks, as may be seen from the data below.

---

[30] Colombia, "Mensaje Presidencial al Congreso de 1947," *Diario Oficial*, 24 July 1947 (Bogotá).

[31] *Diario Oficial*, 30 December 1946, page 1165.

[32] *Memoria de Hacienda, 1947*, vol. I, pages 156 and 157.

[33] Inter-American Council of Commerce and Production, *Encuesta Continental sobre Fomento y Coordinación de Industrias, Respuesta referente a la República de Colombia* (Montevideo, 1947), pages 52 and 53; quoting a report submitted by the manager of the Agricultural, Industrial and Mining Bank.

NEW LOANS BY AGRICULTURAL, INDUSTRIAL AND MINING BANK AND BY COMMERCIAL BANKS, 1939-1948

(In thousands of Colombian pesos)

Year	*Agricultural, Industrial and Mining Bank*	*Commercial banks*	*Total*
1939	28,086	125,583	153,669
1940	28,338	130,767	159,105
1941	30,466	166,738	197,204
1942	27,971	183,725	211,696
1943	27,972	253,262	281,234
1944	43,760	290,637	334,397
1945	49,274	395,762	445,036
1946	61,716	572,745	634,461
1947	87,044	659,993	747,037
1948	100,390	755,569	855,959

Source: Colombia, Superintendencia Bancaria, *Boletín No. 110,* April 1947, page 22; *Boletín No. 119,* January 1948, page 15; and *Boletín No. 131,* January 1949, page 32.

The increase in total new loans by the Agricultural, Industrial and Mining Bank during the five-year period from 1944 to 1948 was made possible, in part, by the increase in the amount of the bank's bonds discounted in the Bank of the Republic and other agencies, and partly by the increase in its paid-up capital. The Bank of the Republic granted the Agricultural, Industrial and Mining Bank a special credit of 8 million pesos for the discount of bonds redeemable within a year to eighteen months.[84]

The following table shows the outstanding loans of the Agricultural, Industrial and Mining Bank, compared with those granted by other types of Colombian credit institutions from 1941 to 1948.

END-OF-YEAR BALANCES OF OUTSTANDING BANK LOANS, 1941-1948

(In thousands of Colombian pesos)

Year (31 December)	*Agricultural, Industrial and Mining Bank*	*Commercial banks*	*Mortgage banks*	*Other institutions*	*Total*
1941	26,747	94,742	60,309	656	182,454
1942	24,449	92,300	60,278	3,327	180,354
1943	22,284	131,467	58,600	5,730	218,081
1944	36,967	155,422	60,166	5,998	258,553
1945	46,520	213,485	66,467	6,594	333,066
1946	60,896	309,351	77,150	6,587	453,984
1947	81,770	369,923	98,237	6,891	556,821
1948	95,842	424,435	103,634	685[a]	624,596

Source: Colombia, Superintendencia Bancaria, *Boletín No. 119,* January 1948, page 24; *Boletín No. 131,* January 1949, page 33.

[a] Excluding Institute for Housing Credit (*Instituto de Crédito Territorial*) in 1948.

---

[84] Superintendencia Bancaria, *Informe, 1947,* page xxxiii.

Data on the distribution of new short-term and medium-term loans granted by the Agricultural, Industrial and Mining Bank during 1945 are shown below (in thousands of pesos).[35] New loans granted by the bank to 31 December 1948 amounted to 100.4 million pesos.

Livestock:	
Cattle	19,550
Other	1,742
TOTAL	21,292
Agriculture:	
Coffee	8,374
Pasture crops	3,372
Potatoes	1,415
Sugar-cane	1,307
Rice	1,098
Other	2,753
TOTAL	18,319
Miscellaneous:	
Construction improvements, etc.	3,623
Loans to co-operatives	2,924
Farm machinery	957
Industries	515
Mining	10
Other	1,633
TOTAL	9,662
GRAND TOTAL	49,273

5. *Statement of condition*

Balance-sheets of the Agricultural, Industrial and Mining Bank for 1944 to 1948, given below, indicate the development of its operations and resources.

END-OF-YEAR BALANCES OF AGRICULTURAL, INDUSTRIAL AND MINING BANK, 1944-1948

(In thousands of Colombian pesos)

Item	*1944*	*1945*	*1946*	*1947*	*1948*
ASSETS:					
Cash and bank deposits	1,382	2,517	4,655	6,044	6,777
Loans and discounts	36,967	46,520	60,896	81,770	95,842
Investments	1,128	1,032	1,736	2,719	12,915
Other	5,875	5,977	6,350	8,982	14,058
TOTAL	45,352	56,046	73,637	99,515	129,592
LIABILITIES:					
Agricultural and industrial credit bonds	25,613	25,258	31,514	46,725	64,774
Demand and time deposits	4,910	15,256	16,205	14,540	15,267
Capital and legal reserves	13,691	13,474	22,112	33,343	43,511
Other	1,138	2,058	3,806	4,907	6,040
TOTAL	45,352	56,046	73,637	99,515	129,592

Source: Revista del Banco de la República (Bogotá), April 1949, page 425.

---

[35] Colombia, Contraloría General de la República, *Anuario General de Estadística, 1945,* page 309.

III. Other agencies

In addition to the Industrial Development Institute, the Government of Colombia created several agencies and took various measures to promote the development of certain sections of the national economy. Several of these are described briefly below.

A. National Institute for Water Utilization and Electrical Development

The National Institute for Water Utilization and Electrical Development (*Instituto Nacional de Aprovechamiento de Aguas y Fomento Eléctrico*) was created by Law 80 of 26 December 1946,[86] as an autonomous entity with independent legal status (*personería jurídica*). Its objectives were:

To study and determine the zones best suited for economical irrigation, drainage, water control and soil conservation;

To study and determine the zones best suited for electrification;

To start construction on the basis of such studies;

To organize enterprises in these fields, or to participate as shareholder in enterprises already in existence or to be established in the future;

To facilitate loans to enterprises dedicated to these objectives, up to 40 per cent of the value of the projects, at a rate of interest not to exceed 4 per cent for a minimum term of ten years; and

To undertake irrigation and drainage projects on unused government-owned lands and to proceed with the partition and sale of such lands to farmers.

The Institute was to be administered by a board of directors (*Junta Directiva*) composed of five members: the Minister of National Economy or his representative; the Minister of Public Works or his representative; a representative of official and semi-official shareholders; and one member chosen by the President of the Republic from each of the following: the Association of Colombian Farmers and the Colombian Engineering Association.

By Decree 2,792, of 20 August 1947,[87] the President of the Republic designated the Ministry of Public Works to exercise technical control over the planning and execution of projects of the Institute, while economic control was to be exercised by the Ministry of Economy.

1. *Capitalization*

The Institute was capitalized at 50 million pesos (approximately US$28.5 million), of which the Government was to contribute a minimum of 80 per cent, and the remainder was to be supplied by provincial governments and by official and semi-official organizations.

---

[86] Colombia, *Diario Oficial*, 31 December 1946 (Bogotá), page 1164.

[87] *Ibid.*, 2 September 1947, pages 582 and 583.

According to the statutes of the Institute, approved by Decree 1,880 of 9 June 1947 and modified by Decree 2,047 of 20 June 1947,[38] the Government's share in the Institute's capital was to be composed of part of the net proceeds from petroleum concessions; ordinary national budget appropriations or extraordinary credits voted to the Institute; investments not yet amortized in projects transferred to the Institute, amounting to 5,929,033 pesos; and shares in various companies established for the construction of hydro-electric plants, amounting to 4,864,833 pesos. The law provided that the Government should include in its ordinary budget each year a minimum of 2 million pesos as its contribution to the Institute's capital. The Government was authorized to arrange for the credits necessary to carry out this provision.

Because the provisions for financing the Institute were considered inadequate for its immediate requirements the Congress was asked to approve an extraordinary credit of 10 million pesos (approximately US$5.7 million) to provide the Institute with funds needed to begin operations. This sum was considered the minimum requirement but was regarded as barely sufficient for the Institute's more pressing needs.[39] Further action to enable the Government to pay its share of the Institute's capital was taken by Law 76 of 24 December 1947,[40] which authorized the Government to negotiate internal or external loans deemed necessary for the purpose. The interest rate of the loans was not to exceed 6 per cent per annum and their total amortization was not to exceed thirty years. The loans were guaranteed by the net proceeds of petroleum concessions due the Government.

The statutes of the Institute were approved by Decree 1,880 of 1947. They called for initial participation by other agencies as follows: National Supply Institute, 10,000 pesos; Agricultural, Industrial and Mining Bank, 5,000 pesos; and Industrial Development Institute, 5,000 pesos.

The National Institute for Water Utilization and Electrical Development was made responsible for all projects in the field of electrical energy formerly assigned to the Municipal Development Fund (*Fondo de Fomento Municipal*), described below, as well as those assigned to the National Revolving Fund for Irrigation and Drainage (*Fondo Nacional Rotatorio de Irrigación y Desecación*). The only exception consisted of projects financed by the loan of US$10 million granted by the Export-Import Bank to the Agricultural, Industrial and Mining Bank, referred to above.

---

[38] Colombia, *Diario Oficial*, 13 and 26 June 1947.

[39] Colombia, "Mensaje Presidencial al Congreso de 1947," *Diario Oficial*, 24 July 1947, page 255.

[40] Colombia, *Diario Oficial*, 8 January 1948, page 52.

The law provided that the Institute was to be reimbursed for its investments, with interest, and for the administrative expenses of its enterprises, exclusive of electrification projects. The Institute was to impose and collect the direct valuation tax established in 1921 and to apply the proceeds of the tax to projects other than electrification.

2. *Electrification policy*

The financing and the enterprises of the Institute were regarded by the Government as of major national concern, and the problems of electrification, irrigation and drainage were considered of the highest importance in planning the economic development of Colombia. The law provided that the Institute should co-ordinate the country's electric power development with irrigation, water control and drainage enterprises, in order that the national economy might derive the greatest possible benefit from all projects.

The main objective of the electrification policy initiated in 1938 was to install power plants to meet the needs of the municipalities; these plants were to be operated by the municipalities.

The administration of the national electrification programme was first assigned to the Municipal Development Fund (*Fondo de Fomento Municipal*), which was created in 1940. It had no over-all electrification plan but invested close to 2 million pesos yearly in constructing small power plants and other small electrification projects, mainly of local importance. This experience demonstrated, however, that the electrification of the entire country on a scale sufficiently large to aid in its industrialization could not be achieved by such means.[41]

In order to remedy the situation, the Government, with the support of special laws, undertook the construction of several central hydro-electric plants in co-operation with the provinces, municipalities and other interested agencies. On 30 June 1946, the aggregate authorized capital of the companies formed for this purpose amounted to 17.2 million pesos (approximately US$9.8 million), of which the Government subscribed 51 per cent.

To advance the electrification of the country, the Ministry of Public Works, and particularly its Department of Public Utility Companies, elaborated the first plan of national scope, which contemplated the installation of 684,000 kilowatts in thirteen of the country's fourteen provinces. With the realization of this programme the installed capacity of the country was expected to rise to five times its 1945 level of 176,600 kilowatts. The creation of the National Institute for Water Utilization and Electrical Development represented a logical outgrowth of the policy of electrification on a national scale, with more effective participation by the Government in the elaboration and execution of plans.

---

[41] Colombia, *Memoria de Obras Públicas* (Bogotá, 1946), pages xxiv to xxvii and 113 to 139.

At the end of June 1947, Colombia had 460 electric plants for public use, with an aggregate power capacity of 175,170 kilowatts and a total invested capital of 77 million pesos. Private plants for private use had an additional estimated capacity of 60,000 kilowatts. The total installed capacity of 175,170 kilowatts for public use consisted of 125,122 kilowatts in hydro-electric plants, 28,230 kilowatts in steam plants and 21,818 kilowatts in internal combustion plants.

There has been a relatively large increase in the production of electric energy, as the figures below indicate. In spite of the increase—to more than six times the level of January 1933—even the peak monthly output of electricity was considered inadequate for the country's expanded need for electric power resulting from industrial development.[42]

ELECTRIC POWER PRODUCTION, 1939-1948

Year (Monthly average)	*Production (In thousands of kilowatt-hours)*	*Index (January 1933 = 100)*
1939	20,932	283.1
1940	21,143	285.9
1941	22,474	303.9
1942	23,358	315.9
1943	25,152	340.1
1944	28,332	383.1
1945	33,004	446.3
1946	38,574	521.6
1947	43,066	582.4
1948	45,376	613.5

Source: Colombia, Contraloría General de la República, *Anales de Economía y Estadística,* March to April 1947, page 70, January to March 1949, page 64.

3. *Irrigation and drainage*

The National Institute for Water Utilization and Electrical Development was given responsibilities of great importance to the national economy in the field of general water utilization and control and, particularly, irrigation and drainage.

The extent and magnitude of these problems were emphasized by the President of Colombia in his 1947 message to the Congress.[43] He noted that Colombian agriculture had developed on the six slopes of the three great branches of the Andes and that these regions constituted the most densely populated portions of the country. The soil of the six slopes was becoming less and less fertile, because of erosion. The Government proposed to save these lands through reforestation, the restoration of grasslands and the cultivation of crops of a permanent nature, especially coffee. By such means, the cultivation of cereals, tubers, sugarcane and other foodstuffs could be shifted to the flatlands where, however, there were great flooded areas as well as districts needing irrigation. For these reasons, the President commented, the activities of the Institute concerned with irrigation and drainage assumed extraordinary importance for the future of agriculture in Colombia and for the provision of adequate food for its population.

---

[42] Colombia, Contraloría General de la República, *Anales de Economía y Estadística,* March to April 1947, page 70, January to March 1949, page 64.

[43] Colombia, "Mensaje Presidencial al Congreso de 1947," *Diario Oficial,* 24 July 1947.

After study of the situation, the Institute inaugurated operations and the President of the Republic expressed his confidence that with the provision of initial finances, even though limited, the organization would be able to contribute to the advancement of industrial and agricultural activity in Colombia.[44]

B. INSTITUTE FOR HOUSING CREDIT

An Institute for Housing Credit (*Instituto de Crédito Territorial*) was created by Decree-Law 200 of 28 January 1939, which was based on the extraordinary powers conferred on the President of the Republic by Law 224 of 12 December 1938.

This legislation provided for the capitalization of the Institute at 3.5 million pesos (approximately US$2 million), to be contributed as follows: 2 million pesos by the national Government, 500,000 pesos by the provinces and municipalities and 1 million pesos by banking establishments which receive special authorization for this purpose from the Superintendent of Banks. The Institute was the object of further legislation, culminating in Executive Decree 1,510 of 5 May 1947, which approved the statutes and provided for its present organization. By these statutes, the Institute was made an autonomous organization with independent legal status.

The functions of the Institute included the promotion of dwelling construction for farm workers and of the construction of healthful and economical urban houses for low-income and middle-income groups, including salaried workers and wage earners. The Institute was to coordinate its activities with those of co-operatives and official and private organizations having similar purposes.

The Institute was to be governed by a board of directors (*Junta Directiva*) composed of eight members: the Minister of Finance and Public Credit, or his representative; the chief of the Department of Sanitary Engineering, or his representative; one representative of the President of the Republic; one representative of the National Association of Manufacturers; one representative of the Association of Colombian Farmers; one representative of the country's commercial associations; one representative of labourers; and one representative of employees other than labourers.

---

[44] Colombia. *Revista del Banco de la República*, January 1948, page 9.

The capital of the Institute was provided by the Government, by provinces and municipalities and by the Agricultural Mortgage Bank, an agency under the administration of the Agricultural, Industrial and Mining Bank. The resources of the Institute were further reinforced by the issue of Government bonds redeemable in twenty years and bearing an interest rate of 6 per cent a year. The service of the bonds was guaranteed by an additional income tax of ½ per cent on all net yearly incomes over 10,000 pesos, in accordance with article 25 of Law 85 of 26 December 1946.[45] The sole purpose of this additional income tax was to provide the Government with resources for increasing the Institute's capital; it was to be in force only until the Government's share in the capital was paid. Law 85 also provided for resources to finance the construction of the proposed dwellings. These resources were considered sufficiently large to finance an extensive housing programme.[46]

Article 1 of Law 85 provided that for a period of ten years, beginning in 1947, 5 per cent of all taxable net incomes over 10,000 pesos was to be allocated to the construction, enlargement, improvement and reconstruction of low-priced houses for low-income and medium-income groups. This contribution was to be used to subscribe for bonds issued by the Institute, which were to yield an annual interest rate of 3 per cent. However, when the contribution of any employer equalled or exceeded 2,000 pesos, taxpayers were allowed to undertake, on their own account, the construction, enlargement or reconstruction of houses for their employees, at a cost up to 65 per cent of their contribution, provided that such projects conformed with the specifications and regulations established by the Institute.

The bonds issued by the Institute were guaranteed by its own capital, reserves and portfolio, as well as by the Government.

The directors of the Institute were to regulate the issuance of such bonds and the utilization of their proceeds within certain general provisions established by Law 85. In addition, the law created provincial boards for low-cost dwellings, composed of representatives of the governments of the provinces, the regional managers of housing institutes and one representative of each of the following organizations: the National Association of Manufacturers, farmer groups in the provinces, commercial associations, labourers' organizations and associations of employees other than labourers.

This system was expected to stimulate the activities of the Institute. Collection of the additional income tax started in 1947. It was estimated that some 10 million pesos (approximately US$5.7 million) would be raised annually:[47] 6 million pesos in bond subscriptions and 4 million pesos in direct building investment under the supervision of the

---

[45] Colombia, *Diario Oficial*, 30 December 1946, pages 1173 to 1176.

[46] *Memoria de Hacienda, 1947*, vol. I, pages 149 and 150.

[47] Colombia, Instituto de Crédito Territorial, ***Informe, 1946***, page 6.

Institute. In addition, from 1947 to 1949 the Colombian savings banks were to invest 10 per cent of their savings deposits, representing approximately 3 million pesos, in Institute bonds.

The statutes provided the Institute with authorized capital of 26.1 million pesos (approximately US$14.9 million), apportioned between its two operating departments: 15.6 million pesos for the Urban Housing Section (*Sección de Vivienda Popular Urbana*) and 10.5 million pesos for the Rural Housing Section (*Sección de Vivienda Campesina*).

On 5 May 1947, when the statutes were approved, the paid-in capital of the Institute was 7,565,000 pesos, of which 4,750,000 pesos was for the Urban Housing Section, and 2,815,000 pesos, for the Rural Housing Section. The Government provided all the paid-in capital allocated to the former section, and 2 million pesos of the paid-in capital of the latter. Of the remainder of the paid-in capital allocated to the Rural Housing Section, 800,000 pesos was contributed by the Agricultural Mortgage Bank and 15,000 pesos[48] by the provinces and municipalities.

The Institute's balance-sheets for 30 June 1947[49] and 31 January 1948[50] showed a paid-in capital of 22,565,000 pesos (approximately US$12.9 million) of the authorized capital of 26.1 million pesos referred to above. The increase of 15 million pesos in the paid-in capital was obtained by the issue of bonds authorized by Law 85.

The Institute launched a three-year plan to be undertaken throughout the country during the years 1947 to 1949. This called for a total expenditure of 26 million pesos (approximately US$14.8 million): 16 million pesos for urban dwellings and 10 million pesos for rural dwellings. This plan was based on the population of the provinces, according to census data for 1938.[51]

From its inception to June 1947, the total loans granted by the Institute amounted to about 8 million pesos. Of this total, 5 million pesos was granted through the Urban Housing Section, which had then been in operation for five years, and 3 million pesos was granted through the Rural Housing Section, which had then been in operation for eight years.[52]

C. FORESTRY DEVELOPMENT INSTITUTE

The Forestry Development Institute (*Instituto de Fomento Forestal*), created by Law 106 of 30 December 1946 and regulated by Decree 2,808 of 22 August 1947, was organized as an autonomous agency with independent legal status.[53]

---

[48] Instituto de Crédito Territorial, *Disposiciones Organis Sustantivas* (*Estatutos y Legislación*) (Bogotá, 1947), page 8.

[49] Superintendencia Bancaria, *Informe, 1947* (Bogotá), page 99.

[50] Superintendencia Bancaria, *Boletín No. 120,* February 1948, pages 30 and 31.

[51] Superintendencia Bancaria, *Informe, 1947,* page xiv.

[52] Colombia, *Memoria de Hacienda, 1947*, vol. I, page 148.

[53] Colombia, *Diario Oficial*, 7 January 1947, pages 38 and 39, and 3 September 1947, page 587.

The purpose of the Institute, as established by law, was to reforest and to study, organize and develop general plans for the conservation, cultivation and utilization of the country's forests. Among the functions of the Institute, according to the regulations, were the following:

(*a*) To study the zones of the country in which reforestation was necessary in order to preserve water systems and soil stability;

(*b*) To undertake the exploitation of certain forest products of vital importance to the country, such as rubber and similar products, lumber, divi-divi (a source of tanning extract) and cinchona. For this purpose the Institute was to construct the necessary means of access with the collaboration of the Ministry of Public Works;

(*c*) To control the export of forest products, in order to assure that specifications are met;

(*d*) To organize experimental nurseries and nurseries for reforestation;

(*e*) To establish plantations of vegetable species of economic value;

(*f*) To supervise the execution of forestry laws;

(*g*) To organize installations for the processing of forest products;

(*h*) To promote the use of the country's forest products, within the country and abroad;

(*i*) To grant long-term credit, at a maximum interest rate of 2 per cent per annum, to persons or corporations engaged in forest cultivation; and

(*j*) To supply, at cost, fertilizers, fungicides, tools and machinery which are necessary for planting, conserving and exploiting forest products. For this purpose the Institute was to have the collaboration of the Agricultural Supply Section of the Agricultural, Industrial and Mining Bank, mentioned above.

The Institute was to be governed by a board of directors (*Junta Directiva*) of five members appointed for periods of two years. Each of the following was to appoint one member apiece to the board: the Ministry of National Economy, the Association for the Protection of Trees, the Association of Colombian Farmers, the National Federation of Coffee Growers and the Colombian Association of Agronomists. The manager of the Institute was to be selected by the President of the Republic from three nominees of the Board of Directors.

The capital of the Institute was composed of annual appropriations of 500,000 pesos from the national budget; the total amount of the profits obtained from the Institute's development of forest products; the amounts obtained from the use of forestry stamps (of 0.10 pesos per hectare for forest utilization), licences or forestry concessions; and the total amount of the fines imposed for infraction of forestry laws.

In addition, the law provided for transfer to the Institute of the balance in the Revolving Fund for Economic Development (*Fondo Rotatorio de Fomento Económico*) of proceeds from the exploitation of forests and the exportation of forest products. The amount obtained from this source was to be used for the promotion of silviculture, for the establishment, organization and maintenance of nurseries and for participation by the Institute in the establishment of companies to develop forest products.

D. MUNICIPAL DEVELOPMENT FUND

The Municipal Development Fund (*Fondo de Fomento Municipal*) was created by Decree 503 of 8 March 1940, to encourage the construction of aqueducts, sewers, schools, hospitals and electric plants.

The Fund was administered by a board of directors which studied the projects presented to it and allocated financial resources for those which were considered acceptable. The Fund's projects were largely short-range undertakings of limited scope. The financial resources of the Fund contributed by the national Government were made up of several special revenues, as follows:[54]

(*a*) Proceeds from taxes imposed in accordance with Law 12 of 1932, consisting of a 10 per cent tax on foreign drafts of residents, a tax on the use of telephone apparatus, a tax on lotteries and raffles and on public spectacles and betting;

(*b*) Profits which accrue to the Government as shareholder in the Bank of the Republic;

(*c*) Proceeds from taxes on oils and lubricants and on insurance premiums; and

(*d*) 20 per cent of the surplus in any fiscal year.

The revenues from these taxes amounted to 6,297,374 pesos and 7,976,334 pesos in 1945 and 1946, respectively.[55] Provision was made for augmenting these resources by means of sums allocated to the Fund from the ordinary national budget; interest and reimbursements on the Fund's loans; proceeds from credit operations of the Fund; and sums assigned to the Fund by provinces, other administrative divisions (*Intendencias* and *Comisarias*) and municipalities, to aid in the achievement of Fund projects by the national Government.

From April 1940 to June 1946, the Municipal Development Fund's investments totalled 29,797,940 pesos, distributed as follows: projects in the municipality of Bogotá, 4,252,960 pesos; schools, 6,892,770 pesos; and aqueducts, sewers, hospitals and electric plants, 18,652,210 pesos. The Fund's investments in electric plants, included in the above total, amounted to 1,656,780 pesos (approximately US$944,000).[56] In executing its projects, the Fund co-operated with provinces, municipalities and other bodies. From the inception of the Fund to the end of 1947, the total value of the contracts for these purposes was 74,822,540 pesos.[57]

---

[54] El Mes Financiero y Económico, *Colombia en Cifras, 1945-1946 (Bogotá)*, page 267.

[55] Colombia, Contraloría General de la Nación, *Informe Financiero* (Bogotá, August 1947), page cvii.

[56] Colombia, *Memoria de Hacienda*, 1946, page 28.

In the period between May 1946 and March 1947 the Fund contributed 1,164,460 pesos for the installation of electric plants from the following sources: national appropriations, 392,080 pesos; provincial appropriations, 244,210 pesos; municipal appropriations, 240,600 pesos; and departmental and other appropriations, 287,570 pesos.[58]

The resources of the Fund on 31 December 1947 amounted to 93,528,310 pesos, which represented an increase of 36 per cent over the 31 December 1946 figure of 68,903,570 pesos. The national Government and other official agencies contributed to this increase, partly by issuing bonds and partly by cash participation.

IV. International action towards economic development

Several measures that involved international co-operation were included among the steps taken by Colombia to further its economic development.

A. EXTERNAL LOANS

Economic Law 90 of 16 December 1948 authorized the Government to contract foreign loans up to US$85 million, of which $60 million was to be negotiated through the International Bank for Reconstruction and Development and $25 million, through the Export-Import Bank of Washington. The distribution of the funds was to be as follows: $10 million for the Betania soda plant; $10 million for hydro-electric projects in Anchicaya, Balsera and Lebrija; $10 million for agricultural equipment to be distributed by the Government; and $30 million for the financing of the Paz del Río steel mill. The $25 million from the Export-Import Bank was to be used for the improvement of ports, agriculture and electric power, the construction of highways and the acquisition of railway equipment and construction materials.

On 31 July 1949 the Export-Import Bank had authorized loans to Colombia amounting to a total of US$65,279,665. This sum included $2,392,957 cancelled or expired; $21,392,680 repaid principal; $21,103,688 outstanding principal; and $20,390,339 not yet disbursed.[59]

The loans granted to the Government or underwritten by the Government included credits for locomotives and other railway equipment, as well as materials, equipment and services for irrigation, electrification and other development purposes.

---

[57] Colombia, Contraloría General de la República, *Informe Financiero* (Bogotá, 1948), page xlvi.

[58] Colombia, *Memoria de Obras Públicas* (Bogotá, 1947), page 150.

[59] Export-Import Bank of Washington, *Semi-Monthly Report*, 31 July 1949.

On 19 August 1949, the International Bank for Reconstruction and Development granted a loan of US$5 million to the Agricultural, Industrial and Mining Bank of Colombia to finance the purchase of agricultural machinery. The loan was for seven years and was guaranteed by the Government of Colombia. The agricultural machinery to be financed by the loan included heavy, light and medium-sized tractors with complementary equipment, hand tools and animal-drawn implements, spare parts, tools and machinery for the maintenance of repair centres.

B. ECONOMIC MISSION

In addition, the International Bank for Reconstruction and Development, at the request of the Government of Colombia, sent a mission composed of nine experts to make a study of the over-all economy of the country. The purpose of the mission, which left in July 1949 and was to remain in Colombia for three months, was to assess the economic potentialities of the country, appraise the feasibility of various projects and indicate the roles that foreign and domestic capital should play in carrying out a development programme. Three other international organizations, the World Health Organization, the Food and Agriculture Organization of the United Nations and the International Monetary Fund, co-operated with the mission.

C. GREATER COLOMBIAN MERCHANT MARINE

The organization of the Greater Colombian Merchant Marine (*Flota Mercante Grancolombiana, S.A.*) was another example of international co-operation for development. This project was promoted jointly by the Governments of Colombia, Ecuador and Venezuela.

The company was created in 1946 with a capitalization of 35 million Colombian pesos (approximately US$20 million). The Governments of Colombia and Venezuela each subscribed 45 per cent of the capital, and the remaining 10 per cent was subscribed by the Government of Ecuador. The Colombian National Federation of Coffee Growers (*Federación Nacional de Cafeteros*) and the Government of Venezuela each offered US$1 million to the Government of Ecuador to facilitate payment of the latter's share of subscribed capital in the Greater Colombian Merchant Marine.[60]

The enterprise was placed under an international board of directors. In his 1947 message to Congress, the President of Colombia stated that the Greater Colombian Merchant Marine had acquired eight new ships in the United States and was providing regular services between the United States and ports in Colombia, Ecuador and Venezuela. He also stated that, despite the lack of experience of the three countries in merchant marine operations, the fleet had achieved a great part of its objectives within a year.

---

[60] Banco Central del Ecuador, *Boletín*, June and July 1946 (Quito), page 7.

In 1949 the company owned ten ships, and an eleventh was under construction. An additional ten to twelve ships were chartered, raising the total number of ships operated by the Greater Colombian Merchant Marine to between twenty and twenty-two. The company reported that in the first two years of operation 1.2 million gross tons were carried by its ships.

D. Gran Colombia Economic Conference

At the Gran Colombia economic conference which was held in Quito in July 1948, Colombia, Ecuador, Panama and Venezuela agreed to take joint action in order to foster economic co-operation. In view of their location in the same economic region and their historic traditional and cultural bonds, the four countries signed the Quito charter which provided for the establishment of an economic and customs union. This action was not intended to supersede their obligations under the Organization of American States nor the United Nations. A Gran Colombia Economic Organization was established to proceed gradually towards the creation of the economic and customs union. An Economic Council was formed within the Economic Organization to study the matter. The Economic Organization also included specialized commissions to study problems related to customs, finance, production and communications.

The proposals approved by the conference of the four nations included the following:

(*a*) Collaboration with the Food and Agriculture Organization of the United Nations;

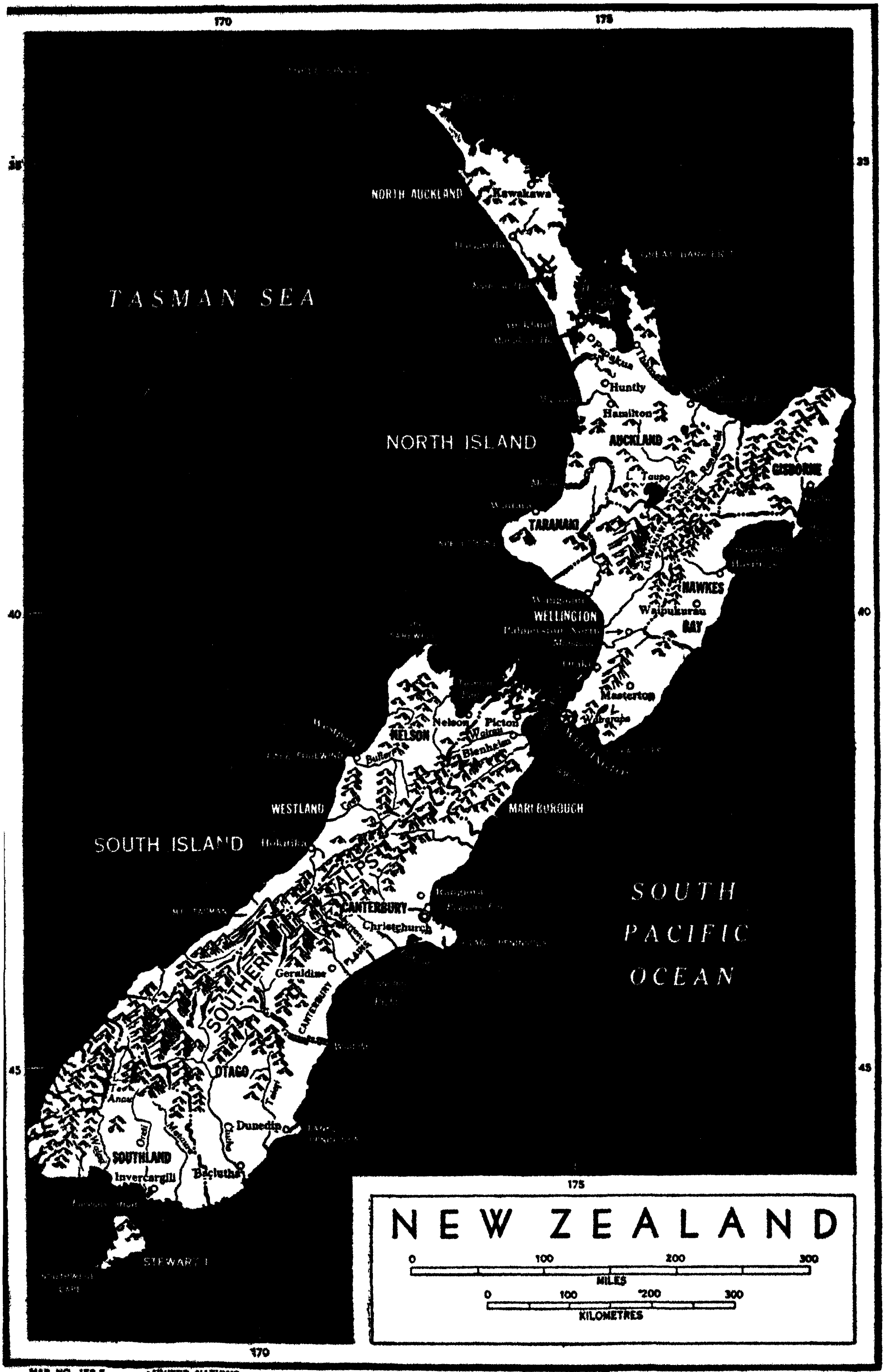
(*b*) Study of the problems of transportation, communications, freedom of transit and pipe-lines among the Gran Colombia countries, to be undertaken by the Economic Council;

(*c*) Studies to be made and presented to a conference, concerning the co-ordination and possible unification of the social security systems of the four countries;

(*d*) A conference to study a proposed Gran Colombia reinsurance institute, a Gran Colombia bank and a compensation fund; and

(*e*) A conference to study the proposed Gran Colombia civil air fleet from the technical and economic points of view.

NEW ZEALAND



MAP NO. 138.5
FEBRUARY 1950

UNITED NATIONS

UN PRESENTATION 606.

NEW ZEALAND[1]

I. General background

The economy of New Zealand is predominantly pastoral and agricultural. Most of the country's wealth is derived from its livestock industries—dairy products, wool and frozen meat—which account for 80 per cent of the gross value of farm production. Pastoral farming was made possible by the large oversea market, mainly the United Kingdom, which has generally imported 70 per cent of New Zealand's livestock products. About 70 per cent of the value of farm production and about 50 per cent of the value of all production is exported.

The value of farm products normally represents between 60 and 63 per cent of the value of all production. The country's natural advantages in farming have been steadily reinforced by modern techniques of production and efficient systems of processing and marketing. Although in recent years there has been little change in the proportion of farm to total production, there have been important changes within the farming and non-farming groups. The relative importance of dairying, for example, among farm industries, has increased, owing to the mechanization of the industry.[2]

Industrial development has been hampered by the relative scarcity of raw materials for heavy industries and the limited size of the domestic market provided by a population of 1.8 million. In addition, the topography of the country and the high cost of transport has tended to limit the efficiency of industries in which the economies of large-scale production are important.

Nevertheless, there has been a trend in recent years towards an increasing degree of industrialization—a movement given added impetus by the war. During the period from 1939 to 1947, the number of factory employees increased about 30 per cent, from 102,535 to 134,435, while the number of manufacturing establishments rose from 6,146 to 7,642, or 24 per cent, and the volume of factory production was about 40 per cent greater. These figures relate to all industries, including those which process primary products. If the processing of primary products is excluded, the value of factory production ranges from 25 per cent to 30 per cent of the value of all production.[3]

---

[1] This chapter was based largely on information contained in the reply by the Government of New Zealand to the questionnaire submitted by the Secretariat of the United Nations in May 1947.

[2] Horace Belshaw, *New Zealand* (University of California Press, 1947).

The principal industries are concerned with the processing of primary products: wool, meat and timber. There has also been considerable development in such industries as construction and shoe manufacturing, which utilize local materials; in consumer goods industries based on imported raw materials—clothing, printing, etc.; and in certain engineering industries. The latter group, of prime importance among New Zealand's manufacturing industries, includes iron and brass foundries, and the manufacture of electrical appliances, agricultural machinery and radio apparatus. In the main, however, New Zealand's industries are small-scale and produce a wide range of goods, rather than a limited number of products on a large scale.

For many years, the major objectives of New Zealand's economic policy have included the attainment of greater economic stability and full employment, the development of resources, the improvement of living standards and the extension of social security. The achievement of these objectives has been dependent in large measure upon economic and social planning by the Government. Methods used to implement policy have frequently taken the form of Government assistance to economic enterprises and, in some instances, control of such enterprises. In general, the economic development of New Zealand has been viewed as a continuing interest of the Government, whose efforts have been directed towards expanding and improving current economic activities rather than introducing fundamental changes in their pattern.

Because of the importance of agriculture to the economy, legislative policy in New Zealand has consistently aimed to further farm production. Such measures as land settlement schemes; Government loans at low interest rates; drainage, irrigation and other public work programmes; and research, advice and instruction provided by the Departments of Agriculture and of Scientific and Industrial Research have been effective in encouraging primary production.

Government responsibility with regard to the production and marketing of primary products was manifest in the Primary Products Marketing Act of 1936, amended in 1937, which set up an Internal Marketing Division for the purpose of organizing the domestic marketing of dairy produce and other products. The Government also promoted the growth of primary industries by means of licensing, price fixing, guaranteed prices, regulation of the quantity of imports and similar measures.

Government sponsorship of a planned development of manufacturing industries appeared in the Industrial Efficiency Act of 1936, "An Act to promote the economic welfare of the Dominion of New Zealand by providing for the promotion of new industries in the most economic form and by so regulating the general organization, development and operation of industries that a greater measure of efficiency will be secured".

---

[3] New Zealand, Census and Statistics Department, *Monthly Abstract of Statistics*, December 1948.

For the most part, figures in this chapter relate to years ending 31 March; in the processing of some primary products, however, the year terminates with the end of the processing season, in June or July.

The need for credit and capital investment to further the economic development of New Zealand prompted the extension of the Government's authority in the financial field. State ownership of the Reserve Bank not only facilitated the Government's programme of public works, the guaranteed-price scheme for dairy produce and the marketing of other products but also enabled the Government to raise public and private spending to the level necessary to employ the country's productive resources. Government control of the financial structure has also been exercised through the State Advances Corporation, the Local Government Loans Board and the Bank of New Zealand. The latter, the largest of New Zealand's six trading banks, was nationalized at the end of 1945.

Economic development in New Zealand has long been considered a normal part of governmental activity. Railways, airways and the telephone and telegraph systems are government-owned. The Government, through the Public Works Department, in 1947 completed a national programme with an estimated expenditure of £NZ 25 million.[4] Government development of water power resources has supplied the basic requirements of industry. The Government, although using private contractors in its housing scheme, has achieved a dominant position in the building industry. In its efforts to develop the mining industry, the Government offered varied assistance in the form of subsidies, financial aid, expert technical advice, training, etc. Because of the severe strain placed on the industry during the war, the Government took over control of privately owned coal-mines, in order to increase production, and announced plans for eventually nationalizing all the principal coal-mines of New Zealand.

II. Development of public works

No single governmental organization has been responsible for economic development on a national scale, but developmental problems have been handled by appropriate agencies, such as the Ministry of Works, the Departments of Agriculture, Industries and Commerce, and Scientific and Industrial Research and the National Employment Services.

Responsibility for economic development in planning construction and public works has been vested in the Ministry of Works. By the

---

[4] During 1947 and 1948 the New Zealand pound was equal to approximately US$3.20.

Ministry of Works Act of 1943, the Ministry took over the powers of the war-time Office of the Commissioner of Defence Construction. At the time the act was introduced, the Minister outlined the functions of the new organization as follows:

"To ensure that during the period of the war and the post-war reconstruction era all proposals for construction (whether or not these involve the direct expenditure of Government moneys or carry Government subsidies) are ranked in order of essentiality from the point of view of man-power and materials available. In other words, to ensure that, whilst the building and constructional potential of the country is limited by war and immediate post-war conditions, it is assembled and utilized in the most efficient manner from the point of view of the national interest;

"To ensure that all schemes for construction involving expenditure of Government funds are thoroughly examined independently of the source from which they originate both from an economic and technical point of view. In this connection not only to examine proposals coming from Government departments, but also the proposals of local bodies or of private interests where such carry with them Government subsidies;

"To ensure that no work is undertaken in conflict with the national interest, or, in other words, to relate proposals for construction to an established national plan."[5]

The Ministry of Works comprises the Office of the Commissioner of Works, the Public Works Department with its constituent divisions and the Office of the Building Controller. In general, it has been the Ministry's function to promote, review and, where necessary, to organize and control the execution of public works and public developmental schemes; to co-ordinate and supervise the functions and activities of Government departments and of local bodies in so far as they concerned building construction, land developmental work and town or regional planning.

The Commissioner of Works, subject to the direction and control of the Minister of Works, is empowered to perform the following functions:

"Take measures to effect co-ordination between Government, local bodies and private interests within the construction industry with a view to furthering development, production and employment.

"Investigate and report, on behalf of the Ministry of Finance, concerning the general planning, economic, technical and developmental aspects of all proposed works involving the expenditure of public funds.

"Review, on behalf of the Public Service Commission from time to time the general standard of availability of professional, technical and supervisory personnel for the design, execution and control of public works, and recommend measures to relate the capacity of such staff to the volume of planned work.

---

[5] New Zealand, Minister of Works, *Report of the Commissioner of Works for the Period Ended 31st March 1946* (Wellington), page 9.

"Survey and maintain a record of constructional equipment, plant, machinery and material resources . . . and recommend to the Minister what action should be taken to obtain additional materials, machinery and plant necessary for the construction of projected works.

"Recommend the order of priority in which public works should be executed.

"Administer the Town Planning Act of 1926 and amendments thereto."[6]

In addition, the Commissioner of Works was authorized to advise on policy matters affecting building control and the supply of materials and to function as head of the Public Works Department in charge of the operation of its four divisions: Engineering, Housing, Architectural and Administration.

A. Planning

In view of New Zealand's urgent post-war need for housing and other construction and the resultant intense competition for scarce manpower and materials, the Government undertook a comprehensive, Dominion-wide survey of all building and other works proposed by Government departments, local authorities and private enterprise for the coming ten years. The purpose of the survey was to establish, on the basis of the relative importance of the projects, a system of priorities for the use of available resources. It was intended thus to secure practical co-ordination among these three groups and to appraise the problem of physical development in its entirety. In the past, planning among the various Government departments had been incomplete and uncoordinated and, as a result, various departments competed for building materials. Furthermore, proposals of Government departments had seldom been made known to local authorities or private interests in sufficient time to be considered in connexion with their own internal planning.

To secure closer co-operation between the central Government and local authorities, regional councils were set up; these were advisory bodies to assist the Government on work proposals involving local authorities in certain specified areas. The major proposals received by the Ministry of Works were assembled in regional schedules and illustrated on large-scale regional maps. When completed, these maps and schedules were given to the regional councils and local authorities which, in collaboration with the Government, prepared a year-to-year priority schedule for the physical development of each region, based on the availability of financial resources, man-power and materials.

---

[6] Reply to questionnaire of the Secretariat of the United Nations.

Efforts were also made to relate the planning and prosecution of public works to economic planning; the Ministry of Works was provided with an economic research staff for this purpose. A survey of Whangarei County illustrates the way in which scientific planning was related to the productive use of land. A thorough examination of the land itself, its climatic features and past and present uses, made it possible to determine what changes in land use would be most advantageous, which areas should revert to forest and which might be developed for farming purposes. It was estimated that if all the land were used in the manner suggested as a result of this study, the income derived from the area might be doubled.

It was planned to base the Ministry's work programmes on regional surveys of the above type, in an effort to implement legislation which had been on the statute-books for a number of years. The Town Planning Amendment Act of 1929 described the general purpose of a regional planning scheme as follows:

" . . . the conservation and economic development of the natural resources of the region to which it relates by means of the classification of the lands comprised therein for the purposes for which they are best suited by Nature or for which they can best be adapted, and by the co-ordination of all such public improvements, utilities, services, and amenities as are not limited by the boundaries of the district to any one local authority or do not relate exclusively to the development of any one such district."

In all aspects of planning, the Ministry of Works laid emphasis on the stabilization of the construction industries and on the provision, at all times, of a volume of work necessary for an economy geared to full employment.

In its effort to adjust the programme of essential works to the available supply of man-power, financial resources and materials, the Ministry of Works prepared an economic and statistical analysis covering (*a*) the over-all capacity of the country to construct works and buildings, (*b*) the allocation of resources among the national Government, local authorities and private enterprise and (*c*) the allocation of Government expenditure.

(*a*) New Zealand's construction capacity was limited by shortages of man-power, particularly technicians, and of timber, cement and steel. The labour force of the construction industry, which in 1939 employed 47,000 men, had fallen to approximately 34,000 in 1947 and was estimated at only 36,000 in 1948. To alleviate the acute shortage of man-power, immigrants were encouraged by the Government to settle in the country in accordance with the policy of assisted passage for building and construction workers—particularly skilled workmen and engineers—instituted by the Labour and Employment Department. Essential materials, such as timber, steel and cement, continued to be in short supply during 1947 and 1948, mainly as a result of shortages of shipping, labour, coal and other raw materials. In addition, certain supplies were limited because of the necessity of restricting purchases to the sterling area as much as possible.

(*b*) Trial plans for the over-all allocation of resources among the three major users—the central Government, the local authorities and private enterprise—were based on the supply position of essential materials. Account was taken in these plans of the relative necessity and merit of different classes of work. Another consideration was the need to ensure long-term stability to building and construction industries as a whole, by varying Government expenditure to offset fluctuations in private expenditure and by using government-sponsored works as a reservoir to be drawn upon in order to stabilize the level of investment. The need to secure a balance between savings and the level of investments throughout the community was considered, as well as various other factors, including the availability of supplies, development of resources, location of work and decentralization of industry.

(*c*) The method for allocating Government expenditure required the designation of quotas for each major class of work—irrigation, soil conservation, highways, etc.—after determination of the over-all volume of Government expenditure for the year; allocations were to be made for the various areas of the country. Maintenance work was to receive first priority in area allocations, and the remainder of the expenditure was to be allotted on the basis of such factors as population, capital value, national income arising in the area and capacity for development. Government and government-subsidized works were to be programmed annually along these lines, according to the estimated finances, manpower and materials available for the particular year.

During 1948 inter-departmental committees, under the chairmanship of district engineers of the Public Works Department, were set up to deal with the conflicting interests of various Government departments at the district level. These committees also worked in close collaboration with the land acquisition committees, in order to ensure that land was available as soon as planned works were ready to be undertaken. In addition, the co-ordination between Government and local bodies which was achieved by regional councils in planning both national and regional works was made even more effective by the activities of the interdepartmental committees, primarily through the district engineers who controlled the committees and were also members of the respective councils.

B. One-year Programme

On the basis of the considerations outlined above, the Ministry prepared a draft programme of Government works and government-subsidized projects for the year ending 31 March 1948, which was regarded as the first step in the practical initiation of the Government's policy in respect of national and regional development. The total expenditure for the construction industry was estimated at £NZ 45.38 million for the year. Of this sum, £NZ 24.98 million represented expenditure on Government and government-subsidized works, to be financed from current revenue and loans, and £NZ 20.4 million, expenditure for enterprises and non-subsidized work by local bodies. In pre-war years, expenditure by the Government usually approximated 60 per cent of the total, but owing to reduced man-power, the Government's programme for 1948 was limited to 55 per cent of the total.

ALLOCATION OF GOVERNMENT EXPENDITURES FOR BUILDING AND ENGINEERING CONSTRUCTION
YEAR ENDING 31 MARCH 1948
(In percentage of total expenditure)

Projects	*Building construction*	*Civil engineering construction*
Land development	8	27
Industrial and commercial building	3	—
Communications	6	43
Utilities (hydro-electric development)	2	25
Housing	55	—
Social services and public administration	23	1
Defence	3	4
Total	100	100

Source: New Zealand, *Ministry of Works Statement* (Wellington, 1947), pages 19 and 20.
— Nil.

Aside from necessary maintenance work, housing, hydro-electric projects and land development had the highest priority. Within the programme, housing and building were estimated at £NZ 21.73 million and engineering work other than building, at £NZ 23.65 million. The portion of Government expenditure in these fields was estimated at £NZ 11.73 million and £NZ 13.25 million, respectively.

GOVERNMENT EXPENDITURE FOR DEVELOPMENT WORKS FINANCED BY LOANS, 1948 AND 1949
(In millions of New Zealand pounds)

Item	*Actual expenditure 1948*	*Estimated expenditure 1949*
Housing	6.6	8.0
Electric supply	5.5	6.0
Land for settlement	1.7	3.5
State coal-mines	1.6	3.0
Railway improvements	1.8	2.5
Education buildings	1.0	1.3
State forests	1.0	1.2
Highway construction	1.3	1.8
Other works	3.3	5.7
TOTAL	23.8	33.0

Source: New Zealand's Budget, 1948 (Wellington), page 21. Years ending 31 March.

C. ACTIVITIES OF LOCAL AUTHORITIES

Apart from its own activities in the construction of public works, the Government encouraged private building in various ways. The State Advances Corporation facilitated home building and land development, while governmental assistance was also given in other forms—for instance, in subsidies from the Employment Promotion Fund, established under the Employment Promotion Act of 1936. The fund was to be utilized, in part, for the development of primary and secondary industries so that an increasing number of workers would be employed in the efficient conduct of such industries.[7]

Local authorities, constituted under various acts of Parliament, were also instrumental in promoting the development of the country's resources. These authorities, including the county councils, borough councils and town boards, exercised jurisdiction over geographic districts; others were created by Parliament for specific functions. The latter included local harbour boards, road boards, electric power boards and land drainage boards, which were authorized to make recommendations closely connected with certain aspects of local government. For example, although the general supervision of harbour facilities was vested in the Minister of Marine, the local harbour boards maintained given ports, provided facilities for their use and, in some cases, undertook local harbour work. Similarly, river control and related construction work were the responsibility of river boards, while drainage boards were generally responsible for the effective drainage of their areas.

---

[7] The Act was repealed by the Social Security Act of 1938, and the Employment Promotion Fund was incorporated in the Social Security Fund. However, the functions of the National Employment Service, a Government department created by the Employment Act, 1945, continued to include the promotion of industry for the absorption of surplus labour.

Since, however, these boards were confined to relatively small areas and were unable to deal with broader problems of land drainage and river protection, the Soil Conservation and River Control Act of 1941 established a number of catchment boards to bring over-all control to the work of interior drainage and river boards. Such catchment boards might be empowered to undertake river control or land drainage work, as well as afforestation and prevention of soil erosion, in accord with the co-ordinated over-all policy for the entire country. The catchment boards are under the general supervision of the Soil Conservation Council, a national agency in the Public Works Department.

Responsibility with regard to roads and highways has been divided between the central and local governments. Sole responsibility for the construction and maintenance of national highways was vested in the central Government, while borough councils, town boards or road boards might have jurisdiction over roads serving particular areas. The Government, for example, might be responsible for 75 per cent of the construction and maintenance costs of a main highway which passes through several districts or counties, and the local authorities in the districts through which the road passes, for the remainder.

Provision of other public utilities, such as water, gas, transportation and electric light and power, were regarded largely as a function of local authorities.

Wherever possible, local authorities financed the construction of public works from their own resources, which included revenue from local taxation, public utilities, licences, etc., and from the central Government. In addition, local agencies sometimes received special grants or subsidies from the central Government for local works of a public or semipublic character. As a rule, however, development work has necessitated the floating of loans. Borrowing by local authorities has been subject to review by a board constituted under the Local Government Loans Board Act of 1926. The board consisted of representatives of the Treasury, other Government departments and an official of the local authority; its function was to investigate the economic and developmental aspects of all proposals for loans.

III. Housing

A shortage of suitable housing accommodation in New Zealand led to the passage of the Housing Survey Act in 1935 as a preliminary step towards a planned programme of housing reform. The act applied to the councils or boards of all boroughs and town districts with a population of 1,000 or more and to certain other specificed local agencies. Each of these was required to make a housing survey of its district in order to ascertain the extent to which existing housing accommodation fell short of reasonable requirements. On the basis of standards laid down by regulations under the act, dwellings were classified according to physical fitness, adequacy of accommodation, etc. The results of the surveys carried out in 115 local districts indicated that more than 7 per cent of the population was living in houses below the minimum standard, and almost 2 per cent was living in overcrowded dwellings. Of the total number of houses covered in the survey, 17 per cent failed to meet standards of physical fitness, while 3 per cent were considered totally unsatisfactory.

This survey provided the basis for a Government programme of home building, which was begun in March 1937 and was prosecuted as vigorously as war conditions permitted. Legislative provision for the programme was contained in the Housing Act of 1919, administered by the State Advances Corporation, described below. In accordance with the Government's policy of providing homes at reasonable rentals to medium and lower income groups, a special Housing Construction Branch of the corporation was established and subsequently transferred to the Ministry of Works as a separate Housing Construction Department. At the same time, provision was made for a special housing account, financed from Government sources; its loan liability on 31 March 1948 was £NZ 36,556,500.[8]

Although urban housing has been under the direction of the Housing Construction Department, actual construction has generally been carried out by private contractors through bids submitted for various contracts; as the buildings became ready for occupancy, control of the assets passed to the State Advances Corporation. From the inception of the scheme to 31 March 1948, 25,721 housing units, representing a capital investment of £NZ 37,985,322, had been completed and turned over by the Housing Construction Department to the State Advances Corporation for administration.

According to New Zealand's budget for 1946, the Government's housing programme provided for the construction of 12,000 houses a year during the following five years. Although the number of houses completed in the 1947 fiscal year—9,612, including Government and private building—fell somewhat short of that target, the total for 1948 was 12,734, an increase of more than 32 per cent. By 31 March 1948, 12,339 houses—3,491 Government and 8,827 private—were under construction.

---

[8] State Advances Corporation of New Zealand, *Report and Accounts for the Year Ended 31st March 1948* (Wellington, 1948), page 21.

A. STATE ADVANCES CORPORATION

Under the terms of the Housing Act of 1919 and its amendments, the State Advances Corporation was authorized to administer various phases of the Government's activities in the field of housing in rural and urban districts. The State Advances Corporation Act of 1936 provided for various types of Government loan for the construction and purchase of homes, the improvement of farms and the development of resources and industries. The act has been administered by the State Advances Corporation, which has been authorized to issue government-guaranteed bonds, stocks or other securities.

The Rural Housing Act of 1939 empowered the corporation to make advances from the housing account to local authorities who desired to extend loans to eligible farmers within the area controlled by the authority. Under the act, loans were made to local authorities at 3 per cent per annum and could be amortized in 25 years. The local authorities, in turn, advanced loans to applicants at 3½ per cent, repayable over a term similar to that on which the local authority borrowed. Applications for such loans required approval by the Local Government Loans Board and the Minister of Finance. The Housing Act of 1919 also provided for financial assistance to employers, thus enabling some branches of industry, such as co-operative dairy companies, to undertake housing schemes for their employees.

Apart from its functions under the Housing Act, and in addition to its primary responsibility of providing inexpensive long-term finance in the form of first mortgages on property, the corporation was authorized to grant loans to develop existing industries, to establish new industries and to finance increases in production. During the war, for example, the State Advances Corporation, in collaboration with the Department of Agriculture, arranged a plan for loans to enable certain factories to increase the production of foodstuffs urgently required by the United Kingdom and the Allies.

In addition, from June 1941, the corporation acted as agent for the Rehabilitation Board in advancing loans to former servicemen. From the inception of the scheme to 31 March 1948, the corporation authorized 20,194 rehabilitation loans for houses, amounting to £NZ 23,752,600; 4,716 loans for farms, amounting to £NZ 19,237,500; and 5,940 loans for business, amounting to £NZ 3,650,700.[9]

---

[9] State Advances Corporation of New Zealand, Report and Accounts for the Year Ended 31st March 1948 (Wellington, 1948), page 7.

More recently, the corporation has restricted its new loan business to the purchase or improvement of urban or rural properties and the erection of new homes, mainly in order to conserve funds for rehabilitation purposes. The volume of new business for loans of this type handled by the corporation during 1947 and 1948 and the aggregate of its operations for the period from 1935 to 1948 are shown below.

LOANS AUTHORIZED BY STATE ADVANCES CORPORATION
1947, 1948 AND 1935-1948
(In thousands of New Zealand pounds)

	Year ended 31 March 1947		*Year ended 31 March 1948*		*Total 1935 to 1948*	
Class of loan	*Number*	*Amount*	*Number*	*Amount*	*Number*	*Amount*
Farm	1,806	7,440	1,149	5,300	9,852	27,921
Residential	7,334	8,772	5,998	7,209	37,356	37,659
TOTAL	9,140	16,212	7,147	12,509	47,208	65,580

Source: State Advances Corporation of New Zealand, *Report and Accounts for the Year Ended 31st March 1948* (Wellington), page 3.

The growing importance of the corporation's role in the development of New Zealand was reflected in the marked increase of the value of the assets and investments under its administration, from £NZ 43.2 million in 1936 to more than £NZ 110 million in 1948.

B. MAORI HOUSING

Provision was made for the housing of Maoris under the Native Housing Act of 1935. This act authorized the Board of Native Affairs to make advances, on security, out of funds appropriated by Parliament for the erection of dwellings and the improvement of housing conditions for the indigenous population. A section of the Native Housing Amendment Act of 1938 established a special fund to provide houses for those unable to furnish the security or to make the payments which the board would ordinarily require.

During the year ending March 1948, 388 buildings, including new dwellings, alterations and additions, were completed, and 259 units were under construction. However, a more extensive programme was planned when supply conditions should improve. In the ten-year works programme submitted to the Ministry of Works, provision for housing for Maoris included the erection of approximately 6,000 new dwellings and the repair of 3,000 existing houses, at an estimated cost of £NZ 7 million.[10]

---

[10] New Zealand Native Department, *The Development and Settlement of Native Lands and the Provision of Houses for Maoris* (Wellington, 1946).

IV. Hydro-electric development

The development of the country's hydro-electric power resources has been a potent factor in its industrial growth; in 1947 electric power was available to some 90 per cent of all farms. Although extensive, electric power development has nevertheless been unable to meet the expanding needs of industry. Hydro-electric projects were undertaken even during the war years; from 1939 to 1945, the generating capacity of the country was increased by more than 50 per cent, at an expenditure of approximately £NZ 20 million. The total pre-war capacity of Government hydro-electric plants was approximately 252,000 kilowatts; the post-war capacity exceeded 480,000 kilowatts.[11]

In order to meet expanding requirements, a comprehensive scheme announced in October 1943 envisaged the ultimate development of ten large stations on the Waikato River, which would raise the country's generating capacity to 800,000 kilowatts. By the end of 1947, the construction of the first of these was well advanced and preliminary work was started on several others. Operations in connexion with new works and extensions, however, were considerably restricted by difficulties in obtaining man-power, materials and deliveries of plant machinery from overseas. At the end of 1944, the Government had fifteen generating stations in operation or under contract for machinery and equipment.

The Hydro-Electric Department of New Zealand was charged with the administration of all legislation dealing with water power and the supply and use of electricity. Its functions included the operation and management of the various Government hydro-electric undertakings; surveys and investigations for future extensions and recommendations concerning future requirements; design of various work required for new developments; and construction and erection of transmission lines, substations and power house machinery. Related civil engineering works, such as dams, tunnels, roads and housing, were constructed by the Public Works Department in collaboration with the Hydro-Electric Department.

Under the Public Works Act, the Government was authorized to develop the water power of the country or to delegate development rights to local authorities or to private individuals and concerns. Delegation of the right to generate power required that a licence be obtained from the Minister of Works and that an annual rental be paid by the licensee. In practice, however, electricity was almost completely supplied by public authorities: the central Government controlled generation and transmission, and local governments were largely responsible for distribution.

Distribution by local authorities was initially handled by the cities, boroughs, counties and town districts. However, in order to facilitate the extension of electricity into rural areas, a broader organization became necessary. Accordingly, the Electric Power Board Act of 1918 grouped several local districts together for the purpose of electric power distribution and established special electric power boards to distribute electricity. Under amendments to the act in 1925, 1927 and 1928, 41 boards, all under the control of the Hydro-Electric Department, came into existence. The total population in licensed areas includes approximately 97 per cent of the population of New Zealand.

---

[11] New Zealand, *Budget, 1947,* page 5.

In addition to Government undertakings controlled by the Hydro-Electric Department and those operated by electric power boards, in 1946 there were 46 stations operated by other organizations;[12] six of these represented private enterprise and the remainder were under local territorial authorities.

The total capital outlay for electric power to 31 March 1946 was estimated at £NZ 54,295,500. Additions to the capital value of all electrical systems during the year ended 31 March 1946 totalled £NZ 4,281,700. Of this sum, £NZ 3,304,200 was contributed by the Government, £NZ 697,500 by electric power boards, £NZ 278,900 by other local authorities and the remainder by private companies.[13]

As a result of the critical supply situation throughout 1947 and 1948 and the necessity for according highest priority to more urgently needed projects, the Public Works Department was seriously handicapped in carrying out such engineering projects as highway, road and railway construction. Apart from essential maintenance, the only major work in this field was connected with the Government's plans for hydro-electric development.

V. Agricultural development

Although New Zealand did not officially adopt a plan for agricultural development, the war-time practice of production targets and close collaboration between the Department of Agriculture and the farmers has been continued in order to increase the country's dairy and meat production. The services offered by the Department of Agriculture were primarily educational, although it also performed important inspection work. The Animal Research and the Livestock Divisions have worked in co-operation with the Department of Scientific and Industrial Research and other institutions engaged in animal research to provide diagnostic and remedial services for livestock. Instruction and advice in the production and marketing of dairy produce have been supplied by the Department's Dairy Division; the Fields Division has provided advice regarding crops, pastures, farm management, grain grading and seed testing. Besides maintaining several experimental and demonstration areas, the Department also operated an agricultural training college at Ruakura, two miles from Hamilton. In addition, the Department has offered financial assistance to farmers by means of advances, grants and subsidies.

---

[12] Mainly distributing stations; a number of small generating stations of relatively minor importance continued to be operated by local authorities and private companies.

[13] New Zealand, Census and Statistics Department, *Official Year-Book, 1946* (Wellington), page 712.

Because New Zealand possesses very definite natural advantages for livestock farming, particular attention has been given to the economic development of dairy production, especially to such factors as building up herds to the maximum through improved feeding (by rotational grazing, etc.), control of animal disease and systematic testing of herds; improvement of pasture and crop production through the use of improved plant strains, fertilizers and lime; and more efficient methods of pasture management. Goals for the industry included an increase in dairy herds to 1.8 million cows in milk by the 1949/50 season, 2 million cows by 1954/55 and 3 million by 1975.[14]

The availability of machinery and the development of hydro-electricity made possible a high degree of mechanization in farming, particularly in dairying.[15] The development of artificial fertilizers and better farm-management techniques were also important factors in substantially increasing production in the dairying industry.

A. LAND UTILIZATION

In addition to the expansion of livestock farming, New Zealand has been interested in certain aspects of long-term farm development designed to maximize the utilization of land resources. The 1946 annual report of the Director-General of Agriculture stated that this long-term policy of development would include the following measures:[16]

(*a*) Improvement in land already under cultivation and development of ploughable scrub land. It was expected that, within a few years, at least 1 million tons of fertilizer and lime would be made available to farmers annually for this purpose.

(*b*) Development of irrigation. Irrigation and land development occupied a prominent place in the Government's plans. The objective was not only to bring additional areas under cultivation and to improve existing holdings by the provision of adequate water supplies, but also to provide additional land for industrial purposes by further reclamation. The Fields Division of the Department of Agriculture worked in close collaboration with the Public Works Department in furthering the development of irrigation work. At the end of 1946, irrigation schemes in

---

[14] New Zealand Department of Agriculture, *Annual Report for Year 1945-46*, (Wellington, 1946), page 3.

[15] The Department of Agriculture has established a Farm Engineering Section to provide farmers with basic information on mechanization.

[16] Department of Agriculture, *Annual Report for Year 1945-46*, pages 4 and 5; *Annual Report for Year 1946-47*, pages 2 and 3.

New Zealand covered a total of 531,000 acres: completed schemes comprised 89,000 acres; those still to be completed, 170,000 acres; and projected schemes, 272,000 acres. There was also under consideration a detailed survey of a project to irrigate 140,300 acres between the Rakaia and Ashburton rivers. Work was started on the establishment of a research area, a demonstration area for mixed farming and a dairy experimental area.

(*c*) Swamp reclamation. Many of New Zealand's swamp areas have been reclaimed by means of comprehensive drainage schemes. The Government planned to make further large-scale capital expenditures in this direction in order to provide land for additional settlement. For example, a planned drainage and land development scheme for Lake Wairarapa was expected to provide for the settlement of an increasing number of dairy farmers and the use of more fertile areas of the land for vegetable production.

(*d*) Control of erosion and deterioration on marginal land. Measures were planned to reclaim depleted land and to check erosion through improved pasture management and spaced plantations.

(*e*) Improvement, erection and repair of farm buildings and homes. Apart from the necessary repair and replacement of farm buildings and houses, which were accomplished as rapidly as possible, additional farm dwellings were required for farm workers and those engaged in the processing of primary products. Lack of suitable accommodations frequently forced workers to abandon farm employment. It was suggested by the Director-General of Agriculture that one possible way of coping with this problem would be to encourage farmers to pool forces and develop co-operative groups of general farm labour. By affording a guarantee of full employment in this way, the building of new farm dwellings for workers would provide a sound investment.

(*f*) Diversification of production. Attention was centred on more intensive land use by expanding production of farm and horticultural seeds.

It was expected that this long-term programme of development would not only help to develop the land resources and to improve farm living and working conditions but would also provide greatly increased employment on farms, in industries processing and transporting primary products and in organizations serving farmers.

The Agricultural Development Committee, under the jurisdiction of the Minister of Agriculture, has investigated the development of various branches of specialized intensive farming and has given special attention to the possibilities of plans for co-operative farm machinery and labour pools, with a view to organizing such schemes to meet farmers' seasonal requirements.

B. LAND DEVELOPMENT FOR MAORIS

The varied activities pertaining to land development for Maoris have been handled by the Board of Native Affairs, the seven Maori Land Boards, the Native Trustee and the East Coast Commissioner. The agency vested with primary responsibility in this field has been the Board of Native Affairs, which was empowered to advance Government funds for the purpose of developing the lands of the Maori people and assisting them in farming ventures by maintaining and extending agricultural and pastoral projects. It was also given authority to undertake the development of crown-lands that adjoin Maori land-development schemes. In carrying out its functions, the Board was authorized to delegate responsibility to the Native Department, a Maori Land Board or the Native Trustee.

In addition to supervising expenditures on housing operations under the Native Housing Act, the Board also exercised control over investments and expenditures on development and farming operations undertaken by Maori Land Boards, the Native Trustee and the East Coast Commissioner.

The principal government plans for development included the following types of project:

"Land-development schemes, which have for their object the breaking-in or development for ultimate settlement of blocks or compact areas of Native land. This is the first stage, when the area is run as a station until conditions are suitable for subdivision.

"Unit development schemes or settlers' farms, for further developing small holdings already settled or being farmed by Maori individuals or families. This is the second stage of development, when an advance is made to the individual farmer (unit).

"Base farms, which have been established for the purpose of assembling, holding, and distributing livestock to surrounding schemes and for change pastures.

"Bulk schemes: facilities for the interim holding and later distribution of bulk purchases of farm requirements, or ventures such as extensive post- and batten-splitting undertakings."[17]

Apart from the east coast Native stations and twenty-one stations financed by the Native Trustee and Maori Land Boards, there were 108 government-financed schemes in New Zealand; these embraced a total area of 655,212 acres in various stages of development. The gross expenditure on state-financed schemes for the year ended 31 March 1948 totalled £NZ 842,250.[18]

---

[17] New Zealand, Native Department, *The Development and Settlement of Native Lands and the Provision of Houses for Maoris,* (Wellington, 1946), page 8.

[18] *Ibid.,* (1948), page 2.

VI. Development of industry

The basic objective of Government policy in the industrial sphere has been the development of an efficient manufacturing industry within New Zealand as a means of increasing employment in the future, conserving the resources of oversea funds and, generally, imparting a greater measure of stability to the country's economic structure through an increasing diversification of industrial effort.

War-time activities of the Ministry of Supply and the Department of Industries and Commerce resulted in valuable experience and knowledge of New Zealand's industrial economy and in co-operative action among industrialists, trades and the Government to meet the country's commercial and industrial requirements. This knowledge and experience have been applied to assist in the development and diversification of industry and of oversea trade and commerce.

The policy of the Government has been directed, first, towards expansion in the lines of production which are allied to New Zealand's natural resources, with the result that advances have been made in such fields as forest products, woollens, dried milk, fruit and vegetable canning. Expansion has also been encouraged in industries that use raw materials, plant or capital from abroad. For example, investigations have been made by the British Rayon Federation concerning the prospects of establishing a rayon-weaving plant in New Zealand.

Despite the shortage of man-power and materials, substantial progress has been made in the development of manufacturing industries. Assistance to industrial interests in overcoming particular supply problems was provided by Government procurement of goods by means of import selection and licensing. Assistance was also given to industries, particularly those requiring iron and steel products, in locating and obtaining urgently needed supplies abroad by means of the Government's oversea representatives and trade missions. In addition, it was expected that the Government's immigration policy would contribute substantially to an improved labour position in New Zealand.[18]

A. INDUSTRIAL DEVELOPMENT COMMITTEE

The Industrial Development Committee, established in 1944, included representatives of the Department of Industries and Commerce, the

---

[18] According to New Zealand's budget for 1947, the immigration plan adopted by the Government was to be restricted to single persons between the ages of twenty and thirty-five, with preference for ex-servicemen and women. These immigrants were to be selected for employment in the more important industries and services. It was anticipated that by the end of 1949 close to 10,000 immigrants would be brought into New Zealand under the plan. In addition, the Labour and Employment Department in 1948 instituted a plan of assisted passage for workers who were prepared to accept employment in the construction industry. The expenditure for this plan of assistance for 1949 was estimated at £NZ 740,000.

New Zealand Manufacturers' Federation and the New Zealand Federation of Labour. The Committee studied ways and means of stimulating industrial development in order to maintain full employment and a proper balance between primary and secondary industries.

As a result of work done by the Committee to encourage the decentralization of secondary industries in New Zealand, an increasing number of industries established branch factories in secondary centres. The Government has long considered that the decentralization of factory production would be advantageous, not only in arresting the movement of population to the more congested city areas, but also in providing opportunities for improved factory environments and for easing the strain on various public services, such as electric power, gas, water, transport and housing, in the main centres of population. Because of the high transportation and distribution costs involved in the decentralization of heavy industry, this trend has been limited principally to the lighter industries, particularly textiles and clothing.

B. Trading Estates

The Government has also given increasing attention to the practicability of establishing trading estates in New Zealand, similar to those in the United Kingdom. The principle of having the State acquire, develop and subsequently lease land for industrial purposes has now been accepted by the Government of New Zealand. It has generally been considered that the use of trading estates would greatly assist in achieving decentralization. They were expected to help in diversifying the nature of employment available locally; to overcome in some measure the general shortage of factory space; and, in so far as they required no capital outlay for land or buildings, to better enable small manufacturers with limited financial resources to engage in industry.

An Industrial Areas Committee, representing the Ministry of Works, the Lands and Survey Department, the Department of Industries and Commerce and the Treasury, Labour and Employment Departments, was created to advise on the establishment of trading estates. Its functions included:

"The acquisition by the Crown of land for industrial purposes and the subsequent allocation and leasing of sites to manufacturing and other commercial interests;

"The control, allocation to industrial units, leasing and administration of government-owned stores and other buildings assigned for industrial purposes;

"The development, when and where appropriate, and subsequent administration of government-owned blocks of rental factories of modern design and construction, provided with up-to-date amenities and services for selected light industries along the lines of similar developments abroad."[20]

C. Linen Flax Corporation

Another noteworthy industrial development was the establishment, at the end of 1945, of an industrial corporation to develop the linen and flax industry. The growing and processing of flax fibre in New Zealand was undertaken at the request of the British Government in 1940 because of an acute shortage.[21] Its importance for use in aeroplane fabric, parachute harness and canvas made it a vital war material. Seventeen factories were established in New Zealand, and an agreement was negotiated whereby the United Kingdom would meet the costs of production of all fibre and tow sent to Great Britain. During the war years the industry was attached to the Department of Industries and Commerce under a management committee, composed of one worker and of representatives of the Departments of Industry and Commerce, Scientific and Industrial Research and the Treasury. At the termination of the war, it was deemed advisable to change the form of control and, in accordance with the Linen Flax Corporation Act of 1945, the industry was vested in a corporation, comprising eight directors and giving equal representation to the Government, the growers, the manufacturers using the raw product in New Zealand and the employees.

The functions of the corporation, as defined in the act, were to organize and develop the linen and flax industry, to make fibre and linen and flax products and to market such products in New Zealand and overseas.

Only six of the seventeen original factories under the direction of the corporation continued in operation. The remaining factories were closed, and the surplus assets, including land, machinery and buildings, were liquidated on behalf of Great Britain by the New Zealand War Assets Realization Board.

Although the initial agreement with Great Britain was for the duration of the war and twelve months thereafter, the period was later extended to include the fibre processed from the crop grown during the 1945/46 season. Under the act, the corporation was empowered to carry out functions of the Department of Industries and Commerce that involved the completion of the contract with the British Government and the liquidation of assets, and was to assume full responsibility in the post-war period for growing and processing linen flax to the fibre stage.

---

[20] Department of Industries and Commerce, *Report for the Period Ended 31 March 1948* (Wellington, 1948), page 20.

[21] This was an entirely new industry in New Zealand, although investigation of the possibility of growing flax in the country was begun in 1936.

D. Department of Scientific and Industrial Research

Although small-scale operations have generally prevented the wide application of scientific knowledge to the solution of industrial problems, this defect has been remedied in some measure by the Department of Scientific and Industrial Research, whose major task has been to improve the efficiency of processing and secondary industries.

This department has worked in collaboration with the Department of Industries and Commerce in providing technical advice and in preparing an *Industrial Bulletin* containing information on technical questions of interest to manufacturers in New Zealand.

E. Bureau of Industry

Under the Industrial Efficiency Act of October 1936, the Bureau of Industry was established to advise on "the rendering of assistance by means of subsidies, grants, loans, tariff concessions . . . with a view to the establishment of new industries or the development of existing industries".

The Bureau was composed of Government officials and of representatives of manufacturing, agricultural and pastoral industries, appointed by the Minister of Industries and Commerce. The Bureau maintained a continuing survey of industries, industrial methods, finance and markets; on the basis of these studies, it made recommendations to the Minister for better industrial organization.

Under the act, the Minister was empowered to direct the Bureau to prepare an industrial plan for the organization of any industry. The plan, however, could not be put into operation without the consent of a majority of those engaged in the industry. The act provided that on acceptance of the plan, an industrial committee comprising representatives of employers, workers and the Government was to be appointed to administer it; if the licensees in an industry rejected the plan, the industry ceased to be licensed and was thus removed from the operation of the act.

The act provided that the Minister of Industries and Commerce might determine that a given industry required a licence in order to operate; the Bureau of Industry, in its capacity as licensing authority, might then attach conditions which it deemed appropriate to the licence and might revoke a licence when it was considered necessary. The act empowered the issuance of regulations to fix prices, discounts, and royalties; to control production and marketing; and to standardize and simplify materials, processes and products.

In this connexion, industrial plans have usually been preceded by a system of licensing, as a means of exercising control over the entry of new units into industries and of enforcing compliance with certain specified regulations in order to ensure that the licensees operate in a manner designed to promote industrial efficiency and the national interest. In 1948 industrial plans were in operation in the pharmacy, flax and foot-wear industries.

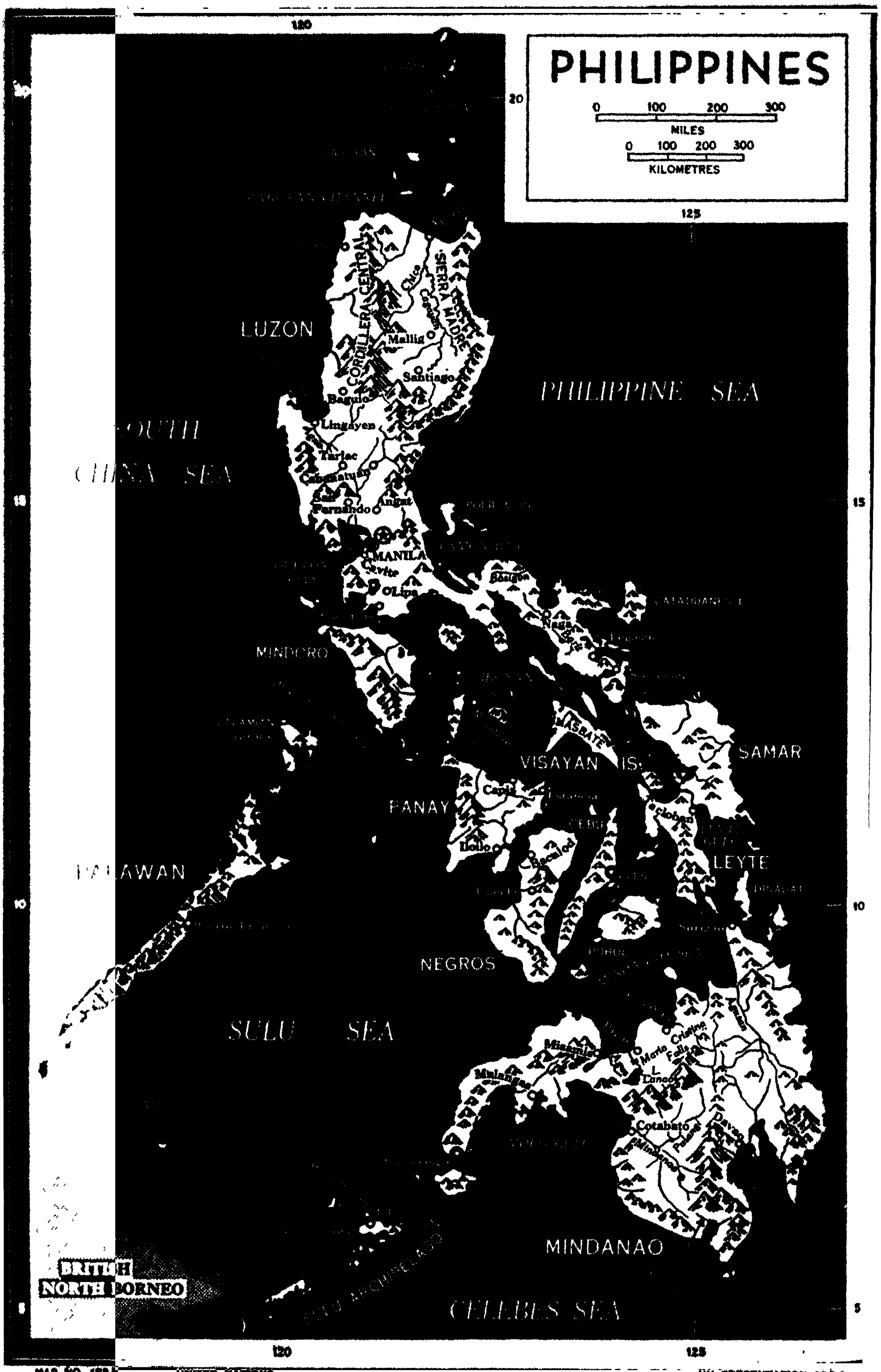
In addition to the above functions, the Bureau of Industry was charged with making recommendations to the Government on applications of industrial enterprises for financial assistance from the State Advances Corporation, for the purpose of developing industries and financing increased production.

F. Import Controls

New Zealand's tariff policy has accorded moderate protection to local industry. Under the Ottawa Agreement of 1932, New Zealand undertook to afford protection by tariffs on United Kingdom products "only to those industries which are reasonably assured of sound opportunities for success" and to reduce protective duties to a level which would enable the United Kingdom producer to compete "on the basis of the relative cost of economical and efficient production".

In order to foster the growth of local industry, particularly manufacturing, import and exchange controls were established in 1938. Under the procedure, applications for import licences involving industrial plants, raw materials and finished products were referred by the Customs Department to the Industries Committee of the Department of Industries and Commerce. In making its recommendations to the Controller of Customs, the Committee took into account such factors as the conservation of oversea funds, particularly in relation to hard currency areas, the relative availability of locally manufactured and imported products, the importance of the local product to the economy of New Zealand and the relative interests of domestic industry and the consuming public. Where industrial development was involved, due regard was given to the effect of decisions on capitalization, labour, power and building requirements.

THE PHILIPPINES



MAP NO. 138.4
FEBRUARY 1950

UNITED NATIONS

UN PRESENTATION 996.6

THE PHILIPPINES[1]

I. General background

The economy of the Philippines is primarily agricultural; 80 per cent of its 19 million population is dependent on the production of agricultural crops for a livelihood. Of the total agricultural area under cultivation, comprising 4.8 million acres, almost 95 per cent is devoted to the production of seven principal crops: sugar-cane, coco-nut, abaca, tobacco, rice, corn and fruit.[2] Three crops—rice, corn and fruit—are produced primarily for domestic consumption. Sugar, coco-nuts, abaca and tobacco find their principal markets abroad, either as raw material or in the form of manufactured or semi-manufactured products. In 1939, the four major export crops constituted about 60 per cent of the total value of agricultural products and 70 per cent of the total value of all Philippine exports, including gold and silver. The principal market for each of these crops was the United States.

The processing of agricultural products provided the basis for a considerable degree of industrial activity in the Philippines. The table below indicates the sources of the national income for 1938 and 1946.

The elimination of tariffs in trade between the United States and the Philippines in 1910 led to the gradual concentration in the Philippines on industries based on agricultural export commodities protected in the United States market and tended, indirectly, to discourage the production both of export commodities not similarly protected and of commodities intended for domestic consumption.

Before the outbreak of the Second World War, the sugar industry was the nation's principal industry, and sugar constituted the leading export product, representing a pre-war capital investment estimated at US$275 million. Before the war almost 2 million persons, including workers and their families, were dependent upon the industry.[3] The sugar mills were so badly damaged by the war that production in 1946 amounted to only 10 per cent of the pre-war level. However, as a result of financial assistance extended by the Government, the number of sugar mills in operation increased considerably in 1948—to an estimated production of 744,000 metric tons, or 78 per cent of the pre-war level.[4]

---

[1] Data for this chapter were derived in part from the reply of the Philippine Government to the questionnaire of May 1947 submitted by the Secretariat of the United Nations.

[2] Bureau of Census and Statistics, *Yearbook of Philippine Statistics, 1946* (Manila, 1947), page 141.

[3] Figures for amount of investment and numbers dependent on various industries from the report of the Technical Committee to the President of the Philippines, *American Philippine Trade Relations* (Washington, October 1944). Investments include land, improvements and machinery.

GROSS NATIONAL PRODUCT OF THE PHILIPPINES, 1938 AND 1946
(In millions of Philippine pesos)[a]

	Value		*Per cent of total*	
Item	*1938*	*1946*	*1938*	*1946*
Agricultural products[b]	482	1,472	41.4	45.6
Rice	177	850	15.2	26.3
Sugar	112	78	9.6	2.4
Copra	69	125	5.9	3.9
Abaca	27	12	2.3	0.4
Tobacco	23	14	2.0	0.4
Other	74	393	6.4	12.2
Livestock and products	52	202	4.5	6.3
Forest products and building	60	60	5.2	1.9
Fisheries	60	194	5.2	6.0
Mining	72	6	6.2	0.2
Other manufacturing	30	120	2.6	3.6
Other industries and services[c]	407	1,174	34.9	36.4
Gross national product	1,163	3,228	100.0	100.0

Source: Report and Recommendations of the Joint Philippine-American Finance Commission (Manila, 1947), page 103.

[a] Pegged to the United States dollar at the rate of two pesos to the dollar, the value of the Philippine peso is US$0.50.

[b] Includes production, processing and distribution of all agricultural commodities.

[c] Sum of value added to imported consumers' goods and the following services not elsewhere included: restaurants, hotels, etc., other domestic and personal services, transportation and communications, professions, financial services, etc.

Coco-nuts, the second most important agricultural export before the war, rose to the top of the list of Philippine post-war exports. The total pre-war investments in the industry were estimated at $221 million. About 4 million people depended on the industry for their support in the pre-war period. The value of coco-nuts and coco-nut products exported in 1948 exceeded the 1940 level more than eightfold.

A third industry associated with agriculture, of considerable importance in the Philippines, was the manufacture of cordage from abaca fibre, known as Manila hemp. The abaca industry represented a pre-war investment of approximately $200 million, and two and a half million people were dependent on the industry for their living. The 1948 abaca production of 99,460 metric tons amounted to only 69 per cent of the pre-war output,[5] but loans by the Government to abaca planters were expected to help speed the rehabilitation of the industry.

---

[4] Food and Agriculture Organization of the United Nations, *Monthly Bulletin of Food and Agricultural Statistics*, September 1949, page 8.

[5] Philippine Bureau of Census and Statistics.

Tobacco constituted the fourth largest item among the pre-war Philippine agricultural exports, with total investments aggregating $30 million and with about half a million people dependent on the industry before the war.

Mining, another major pre-war industry, reached its full development between 1932 and 1941, when minerals to the total value of about 500 million pesos (US$250 million) were produced; in 1940, over 44,000 employees were engaged in mining. There were 43 gold-mines, four iron, four copper, five chromite and five manganese mines in operation in 1940, and their total production was valued at approximately 92 million pesos.[6] The mining industry suffered most from war destruction; by 1948 there were only eight gold mines and eleven base metal mines in operation; total production amounted to approximately 20 million pesos worth of metals.

Manufacturing industries, which before the war accounted for 2.6 per cent of the national income, employed 11.3 per cent of the gainfully occupied population.[7]

A. REVIEW OF PLANNING

A systematic programme deliberately aimed at more balanced economic development in the Philippines had its inception in the mid-1930's. In 1935, after the passage of the Independence Act by the Congress of the United States, a programme for economic development was launched almost simultaneously with the establishment of the Commonwealth, in an attempt to prepare the nation for loss of tariff exemptions and consequent difficulty in selling to the United States.

Under the Independence Act as amended in 1939, progressively declining quotas were fixed for certain agricultural products that were admitted duty-free into the United States market during the transition years. A graduated tariff duty was to be imposed beginning in 1941, until the full rate was to have been reached on 4 July 1946.

The effects of this legislation were expected to vary from industry to industry, according to its competitive position. The production costs of many industries were not on a competitive level with similar products produced in other parts of the world, owing in part to the preferential position enjoyed by the Philippines in the United States market and in part to relatively higher standards of living in the Philippines compared with other producing areas. It also became increasingly apparent that certain imported commodities could be manufactured locally from raw materials which were already on hand or which could be produced in the islands. It therefore seemed necessary for the Government to plan a definite programme to increase the efficiency and reduce the production costs of the export industries and to foster agricultural and other industries which were less dependent on foreign trade.

---

[6] National Development Company (with H. E. Beyster Corporation), *Proposed Program for Industrial Rehabilitation and Development of the Philippines* (Manila, 28 October 1947).

[7] United Nations secretariat of the Economic Commission for Asia and the Far East, *Economic Survey of Asia and the Far East, 1948*, page 110.

Between 1935 and 1941, the Philippine Government attempted to accomplish these ends by direct participation in an over-all economic programme. The National Economic Council was established to plan and co-ordinate general economic development policy, to be executed by appropriate national agencies covering all sectors of the economy. Although some progress was made by the National Development Company and other Government corporations established in the pre-war period, numerous serious obstacles impeded efforts towards the achievement of an independent economy. Lack of capital was the most serious difficulty. A further obstacle was the lack of trained personnel needed for the more complex types of industrial enterprise. There was also the lack of control by the Commonwealth over its tariff system.

The war completely disrupted the economic programme of the Commonwealth Government, which, when it was re-established after the liberation of the Philippines in February 1945, faced the pressing need of rehabilitating and reconstructing the economy and of making good war losses estimated at 3,500 million pesos. Because of the necessity of meeting immediate relief needs and planning a welfare programme, the long-range economic development plan was set aside. The United States Congress on 30 April 1946, by the Philippine Rehabilitation Act and the Philippine Trade Act, provided urgently needed financial and technical assistance for recovery. The former authorized a total expenditure by the United States of $620 million for rehabilitation of the Philippines; the latter established absolute quotas for principal Philippine exports to be admitted free of duty for eight years, beginning in 1946; it provided for a graduated tariff thereafter, from 1955 to 1972—beginning in 1955 with 5 per cent of the rate charged on corresponding products entering the United States from other countries, and increasing by 5 per cent each year. Reciprocal rights were established which gave United States and Philippine nationals equal privileges in the exploitation of natural resources and the operation of public utilities.

After the inauguration of the Philippine Republic on 4 July 1946, the Philippine Government, in agreement with the United States Government, formed a joint finance commission to consider the financial and budgetary problems of the Philippines and to make recommendations concerning them. The Philippine Government later instituted financial and monetary reforms in line with these proposals and established the Rehabilitation Finance Corporation and the Central Bank.

The Government sponsored studies to outline programmes for the economic rehabilitation and development of the country; one by the

National Development Company proposed a general economic plan of industrialization covering fifteen years, and another by the National Power Corporation outlined a power development programme for a five-year period. These studies, together with the report and recommendations of the Joint Philippine-American Finance Commission, constituted a general pattern for the economic rehabilitation and development of the Philippines. The immediate feasible projects called for in these studies were included in the Philippine Government's five-year programme for the period 1949 to 1953.

Under legislation in effect since 1937, the Government has had authority to enter the economic field in the role of producer, by establishing new enterprises and acquiring already established industries for improvement or preservation. In this capacity, the Government, through such agencies as the National Development Company and the National Power Corporation, was empowered to develop and operate industries which were needed by the country but required larger capital outlay than private corporations could supply or were willing to venture. Before the war, for example, the Government undertook power development and the operation of government-owned cement, canning, textile and shoe factories. In some industries, although there were private enterprises in the field, demand was so great after the war that the Government entered the industry to ensure the availability of vital commodities at reasonable prices. The National Development Company, for instance, entered the lumber industry to provide much needed lumber for building construction in the post-war period; the National Abaca and Other Fibres Corporation planned to operate and maintain abaca plantations in order to increase production and to assist in marketing abaca products more profitably. These were considered temporary ventures; Government ownership was to be transferred to private enterprise as soon as prices were stabilized and the pressure of demand relieved.

In order to encourage new industries, the Philippine Republic, by Congressional Act 35, effective September 1946, exempted "new and necessary" industries from internal revenue taxes for a period of four years. Classification of industries as "new and necessary" was left to the determination of the President and the members of the Cabinet. The investment of United States capital was to be encouraged by means of reciprocal rights, the pegging of the peso to the United States dollar and the protracted period of free trade to be followed by gradually declining preferences. Provision was also made for sending technicians abroad to be trained in modern manufacturing techniques.

B. Co-ordination by National Economic Council

The National Economic Council was established during the Commonwealth period, late in 1935; its general function was to plan the direction of the national economy and to co-ordinate Government efforts with those of private industry. First among the specific functions of the Council, as enumerated by law, was to advise the Government on economic and financial questions, largely by examining specific proposals for various types of industrial development and making recommendations to the Government in the execution of industrial policy.

The Council as constituted in 1935 was composed of fifteen members, of whom nine were members of the Cabinet or officials in the various economic departments of the Government, and six were non-official representatives of labour, business, agriculture and industry.

Immediately after the war, the task of economic planning and co-ordination was placed in the hands of the members of the Cabinet, who met with the President of the Republic to confer on economic proposals and policies. However, the need for a specialized central agency to integrate the planning, financing and execution of the vast post-war economic activities envisioned by the Government led to the reconstitution of the National Economic Council late in 1947. More extensive powers were given to the Council, which became an important policy-making body. It was the National Economic Council which recommended in the spring of 1949 the adoption by the Government of the five-year programme of rehabilitation and economic development, described below.

II. Industrial development programmes

A. Proposed Programme of National Development Company

The basis for the Government's five-year programme was an extensive study prepared by the National Development Company with the assistance of a United States firm of consulting engineers.[8] The study, which covered all aspects of the Philippine economy, recommended steps and projects to accelerate and promote the industrialization of the country over a fifteen-year period. "The proposed blueprint of the industrialization of the Philippines", as the report was officially described, was not regarded as an operating programme, but rather as a tentative over-all plan outlining the possibilities and requirements of the Philippine economy.

The majority of the recommendations for projects for industrial development were of a self-liquidating character, in order to avoid strain on depleted Government finances. The report outlined feasible means of developing the natural resources of the country. It discussed the possibilities of developing mining, chemical, metal and fuel resources and suggested an expanded production of food and farm products and of miscellaneous manufacturing industries, including cottage industries. Some of the proposals were for new projects to be financed by private capital or, failing that, by the Government; others recommended the rehabilitation or expansion of established industries. The proposals constituted a comprehensive detailed study of the economic possibilities of the Philippines and offered recommendations designed to promote recovery and to establish the economy firmly on the basis of the nation's available raw materials and domestic requirements.

---

[8] National Development Company (with H. E. Beyster Corporation), *op. cit.;* T. Hibben, *Philippine Economic Development,* a study prepared for the use of the Joint Philippine-American Finance Commission, although differing in details and cost estimates, contained essentially the same programme.

The report mentioned the need to acquire plant and equipment in reparations from Japan. The Far Eastern Commission, composed of eleven nations, allocated to the Philippines 5 per cent of the *ad interim* equipment pool from excess Japanese plant capacity, which was set at 30 per cent of the total capacity. The following industrial plant and equipment were included in advance reparations from the total Japanese reparation equipment pool: aircraft and aircraft engines, navy and army arsenals, laboratories and machine tools, ball and roller bearings, privately owned munitions plants, a thermal power (steam) plant, shipyards, aluminium fabricating machinery, iron and steel plants, sulphuric acid, caustic soda, chlorine, soda ash plants, aluminium and magnesium reduction plants, and equipment for the production of synthetic oil and rubber.

In its plan for industrialization, the National Development Company sought to fit the allocated capacities of the industries based on Japanese reparations to the requirements of the Philippines. The report emphasized that, without Japanese reparations, the need to purchase equipment from other sources might result in a serious set-back to the reconstruction and expansion of the industrial economy because of the heavy capital investment involved. Despite some delay, the Philippine Government expected to obtain the full remainder of its share of the *ad interim* equipment pool reparations from Japan.

1. *Financing the programme*

The report recognized that considerable capital would be required in addition to Japanese reparations and suggested that the Government float bonds to help finance some of the proposed projects. Because of the influx of war payments in United States dollars, it was proposed that the Government promote a bond subscription drive for the sale of non-assignable and non-negotiable bonds issued to the general public, to be purchased from current disbursements of war damage payments. The report recommended a campaign to limit luxury expenditures voluntarily, to a maximum of 50 per cent of war damage payments. It pointed out that the "citizens of the Republic must realize their responsibilities in investing in the economic development of the country".

The National Development Company strongly supported the recommendation of the Joint Philippine-American Finance Commission that the United States entertain requests for industrial loans by the Philippines. It also recommended that the National Economic Council, as the Government's industrial master planning body, draw up a short-range plan based on the proposed industrialization, and prepare estimates of the expenditures required for the establishment of basic industries for which equipment was not obtained by reparations. It suggested that a prospectus then be prepared for the purpose of negotiating an industrial loan from the United States in order to initiate the phase of the programme that was not covered by reparations.

With these funds, the report explained, the Government could assist worth-while ventures financially or by supplying equipment. It proposed that the Government should assume a minimum holding of 51 per cent, and that private capital should manage and operate the industries and contribute 49 per cent of the capital investment. In instances where the Government invested 100 per cent of the capital requirement, it was proposed that the plants should be sold after the initial period of operation or at a time when private capital evidenced interest in acquiring the enterprises.

The Rehabilitation Finance Corporation was mentioned by the National Development Company as another possible source of capital for industrial undertakings; the Government had already announced that capital loans to industries and individuals for domestic industrial purposes would be underwritten by this corporation. The National Development Company considered that the Government should establish a definite financial policy regarding participation in capital ventures.

2. *Proposed projects*

The report found that certain projects required the earliest possible consideration and advocated priority ratings for projects according to their importance. High on its recommended list was the development of metal industries, especially iron and steel, as basic to industrialization.

Two steel plants were proposed in the general plan, one in the Manila area and another in Iligan, Lanao. Together, the two plants were expected to produce 50,000 tons of steel annually. The Iligan unit was to produce the bulk of iron and steel and heavy products; the Manila plant was to manufacture steel from scrap in electric furnaces and to produce light steel products.

The report enumerated the following steel products among the most needed: steel rods and bars, corrugated and plain sheets, angles and channels, beams, round wire, wire nails, nuts, bolts and washers and steel pipe. Based on the 1940 import total of 79,715 tons, it was estimated that a total annual production of 139,600 tons for the enumerated eight items would be required.

In addition, the plan proposed the installation in Manila of an iron foundry with 128-ton daily capacity, the establishment of a factory for the manufacture of 5,000 tons of nails annually, the construction of ten sheet-metal plants with a combined annual capacity of 3.4 million square metres of manufactured product and the expansion of plants producing agricultural implements.

It was also proposed to construct a ferro-alloy plant with a capacity of 14,000 tons per year, a copper smelting and refining plant of 8,000 to 15,000 tons annual capacity and two copper wire plants with a combined yearly capacity of 10,000 tons. The development of various subsidiary metal industries was mentioned.

The National Development Company's report contained specific suggestions for the number, kind and capacity of plants required to expand the chemical, the textile and the forest products industries, as well as mining and quarrying.

With regard to agriculture and allied industries, proposals were made to install an experimental plant for the production of rice bran oil, to establish tanneries capable of utilizing locally produced catechu (astringent), to erect eight alcohol distilleries to use surplus molasses for a combined annual production of 9 million litres of alcohol and to build four coco-nut oil processing plants with a capacity of 70 tons per day. Rehabilitation of the tobacco, sugar and fishing industries, with expansion of the latter, was recommended, as well as increased production of livestock. The development of the ramie industry was also suggested.

Recommendations were made in the report for the development of public services, including electricity, transportation facilities, shipping and roads. The promotion of shipbuilding in the islands was urged.

Definite proposals and investigations were not made with regard to synthetic rubber and oil, but it was urged that further special study be undertaken in view of the deficiency of natural oil and rubber in the Philippines.

The report contained only tentative estimates, subject to revision, of the capital required for the projects recommended by the National Development Company.

B. FIVE-YEAR PROGRAMME OF THE GOVERNMENT

Because the resources available for implementing the long-term and short-term projects in the National Development Company's proposed programme were limited, the National Economic Council on 7 March 1949 recommended a five-year programme of rehabilitation and development, covering the period 1949 to 1953, which was subsequently adopted by the Government.[9] The objectives of the programme, as stated by the Council, were as follows:

(*a*) To adjust the Philippine economy to the decline in United States Government payments after 1951 and the progressive imposition of

---

[9] National Economic Council, *Program of Rehabilitation and Development*, mimeographed (Manila, 1949).

United States tariffs after 1954, by income-producing and dollar-saving projects, such as food production enterprises, light industries and handicrafts.

(*b*) To attain the initial stages in structural adjustments necessary to change the national economy from sole dependence on export crops to an economy better able to withstand severe fluctuations in demand and price for export crops in foreign markets, by increasing the production of rice and other food crops, by diverting productive activity from raw material production to industrial processing and by increasing the investment in urban housing.

(*c*) To provide for the reconstruction, extension and growth of transportation and communication services in order to enlarge the scope and possibilities of the domestic market and promote greater regional specialization.

In emphasizing the short-term projects which were expected to yield returns on investment and to increase the gross national product within a comparatively short period, the Council was guided by two principal considerations—approaching payment and tariff adjustments from 1951 to 1954 and available financial resources.

The Council considered that long-term industrial projects requiring further study of the technical and economic aspects involved should not be included in the five-year programme. It was suggested, however, that if careful study indicated that certain projects were feasible and socially desirable, they should be integrated into a longer-term development programme to follow the short-term phase.

1. *Proposed capital investment*

The Government plan involved a total capital investment of 1,730 million pesos over the five-year period, consisting of 419 million pesos for agricultural projects and 1,311 million pesos for industry, mining, transportation, housing and public works. These totals included both public and private investment requirements. The amount of capital investment proposed for the various categories during the five-year period is shown below.

The investment estimates prepared for the programme did not cover capital requirements for local marketing, distribution and related services. These costs, as well as the cost of necessary technical and vocational training and various social expenditures in connexion with health and education, were left for future consideration.

Under the programme, the Central Bank was to advance 30 million pesos to the Government during 1949 for financing industries in the top priority list, and 35 million pesos to the Rehabilitation Finance Corporation for loans to private persons and firms for the promotion of dollar-producing enterprises. The granting of loans for various projects was made subject to study and approval by the National Economic Council.

PLANNED INVESTMENT UNDER FIVE-YEAR PROGRAMME, 1949-1953
(In millions of Philippine pesos at 1949 prices)

Type of project	*1949*	*1950*	*1951*	*1952*	*1953*	*Total*
Agriculture	108.2	116.2	103.7	91.3	—	419.4
Industry	89.8	82.9	131.5	41.4	8.6	354.2
Transportation and communications	116.8	105.6	91.2	76.8	69.0	459.4
Public works	35.5	44.9	66.0	66.5	66.5	279.4
Housing	25.0	25.0	25.0	25.0	25.0	125.0
Mining	21.1	21.5	10.6	7.0	5.0	65.2
Miscellaneous	7.8	5.8	6.4	4.0	4.0	28.0
TOTAL	404.2	401.9	434.4	312.0	178.1	1,730.6
TOTAL EXCLUDING AGRICULTURE	296.0	285.7	330.7	220.7	178.1	1,311.2

Source: National Economic Council, *Program of Rehabilitation and Development,* mimeographed (Manila, 1949).
— Nil.

Emphasis was placed on close co-ordination in the financing of projects by loans of the Rehabilitation Finance Corporation and by direct advances from the Government, in order to avoid duplication and to ensure that the cost estimates of projects and the schedule of needed outlays were proportionate to the funds to be made available through the Central Bank or the flotation of bonds.

2. *Industrial projects*

The sum of 354.2 million pesos for industrial projects was to be allocated as follows: 14.7 million pesos for projects under construction, including knitting mills and plants for the manufacture of plywood, paper, bottles and nails; 58.6 million pesos for projects on which studies were completed, including plants for manufacturing ice, steam, gas, agricultural equipment, textiles, barrels, furniture, lamps, wallboard, windows, paper containers and embroidery; 209.7 million pesos for projects in advanced stages of planning, including plants for manufacturing fertilizers, alcohol, cement, nets and leather, for extracting catechu and pasteurizing milk, as well as hydro-electric plants and miscellaneous handicraft enterprises; and 41.2 million pesos for projects in preliminary stages of planning, including the manufacture or processing of such products as coke, insecticides, wood-pulp, fish meal and shark liver.

3. *Agricultural projects*

The distribution of planned investment in agricultural and related projects for the four-year period, 1949 to 1952, is shown below. The total for the five-year programme does not include planned investments for 1953.

ESTIMATED FINANCIAL REQUIREMENTS FOR AGRICULTURAL PROJECTS 1949-1952
(In thousands of Philippine pesos)

Product	*1949*	*1950*	*1951*	*1952*	*Total*
Rice	4,950	4,950	2,750	2,750	15,400
Corn	749	749	360	360	2,218
Coco-nut	2,500	2,500	440	440	5,880
Sugar	21,000	21,000	21,000	11,200	74,200
Abaca	5,500	5,500	5,500	5,500	22,000
Tobacco	1,500	1,500	1,500	1,500	6,000
Ramie	313	313	313	313	1,252
Jute	467	9,780	22,780	22,780	55,807
Fisheries	10,313	9,013	3,825	1,200	24,351
Forestry	29,376	29,376	13,750	13,750	86,252
Livestock	31,500	31,500	31,500	31,500	126,000
TOTAL	108,168	116,181	103,718	91,293	419,360

Source: National Economic Council, *Program of Rehabilitation and Development,* mimeographed (Manila, 1949).

The agricultural production targets for 1949 and 1952 under the Government programme are shown in the table below.

PLANNED AGRICULTURAL PRODUCTION, 1949 AND 1952
(In metric tons)

Product	*1949*	*1952*
Rice, milled	1,565,236	1,937,701
Corn	499,741	549,302
Coco-nut and products	1,328,120	1,615,760
Sugar	750,000	1,050,000
Abaca	105,000	173,000
Tobacco	17,500	32,500
Ramie	500	2,000
Jute	949	113,850
Fish	456,800	645,170
Ground-nuts (unshelled)	9,470	13,270
Lumber (millions of board feet)	480	815
Livestock (thousands of units)	3,800	6,382

Source: National Economic Council, *Program of Rehabilitation and Development,* mimeographed (Manila, 1949).

4. *Priority of projects*

The National Economic Council recommended that the following order of priority be observed in the execution of the programme.[10]

Top priority: Rice, corn, fishery and other food products; abaca; maguey; tobacco; ground-nuts; coco-nuts; ramie; livestock and products; forest products; mining; land transportation; shipping; water power development; small industries (nails, paper and pulp); fertilizer; and handicrafts.

---

[10] Not listed in order of importance within each category.

Secondary priority: Water supply; port improvements; schools, hospitals and markets; housing (including commercial projects); flood control and drainage; aircraft and airports; drydocks for large vessels; and jute.

The 30 million pesos mentioned above, to be advanced to the Government by the Central Bank, was to be ear-marked for the following projects, for which detailed studies and plans were completed by the responsible Government corporation: rice and corn projects; hemp projects; rehabilitation of the sugar industry; the Ambuklao and Lumot water power projects; rehabilitation of port facilities for ocean shipping; development of coco-nut by-products; nail factory; rehabilitation of fisheries; paper and pulp plants; and purchase of vessels for foreign trade. A brief account of the plans for several of these projects is presented below.

III. Development agencies and activities[11]

A. NATIONAL DEVELOPMENT COMPANY

The National Development Company was organized on 10 March 1919, pursuant to a special charter granted by the Philippine Legislature under Act 2849, with such general corporate powers ". . . as may be necessary to enable it to maintain and promote sufficient general production by efficient co-ordination of the production forces of the country, or otherwise, and to secure a stable market for Philippine products". The corporation was also authorized to engage in ". . . enterprises which may be necessary or contributory to the economic development of the country or important in the public interest . . .". In 1936 the Commonwealth effected a reorganization and strengthening of the company in order to make it an effective instrument for implementing the industrialization policy.

The National Development Company, as constituted under its original charter, was not considered a public corporation although the Philippine Government was the sole initial stockholder. However, after the establishment of the Commonwealth Government, the charter of the corporation was amended by Commonwealth Act 182, effective on 1 January 1937, which converted the company into a public corporation "to serve as an agency of the Commonwealth of the Philippines in the furtherance of its economic policies". The management of the corporation was vested in a board of directors, consisting of the Secretary of Agriculture and Commerce and the Secretary of Finance, as *ex officio* directors, and five other members appointed by the President of the Philippines with the consent of the Commission on Appointments of the Philippine Congress.

---

[11] The present report deals only with the agencies which are directly concerned with governmental plans for economic development.

1. *Capitalization and investments*

The National Development Company was established as a holding company, deriving its income mainly from dividends on investments in the stock of its subsidiaries. Interest earned on bonds of the De La Rama Steamship Lines, and of the Compañía Celulosa de Filipinas, Inc., and on advances to subsidiaries was another source of income. The company's profits, returnable to its sole stockholder, the Philippine Government, formed a fund to be used for further enterprises.

The authorized capital stock of the corporation was 50 million pesos, composed of 500,000 shares of stock with a par value of 100 pesos. The Philippine Government subscribed 51 per cent of the capital stock, and the remainder was to be offered for sale to provincial, municipal and city governments. In 1949, the Philippine Government was the only stockholder. It subscribed and paid for 264,103 shares, amounting to 26.4 million pesos at 100 pesos per share.

In order to carry out the purposes for which it was created, the National Development Company organized several subsidiaries to engage in various commercial and industrial enterprises. The company, in certain cases, entered into fields where private capital was established, in order to increase the supply of critical materials. Although it was not intended that the company should compete with private capital, it entered into such competition in order to bring prices down to "reasonable levels".

The pre-war investments of the National Development Company in its subsidiaries were as follows: National Food Products Corporation, 2.5 million pesos; National Rice and Corn Corporation, 4 million pesos; National Warehousing Corporation, 510,000 pesos; National Footwear Corporation, 500,000 pesos; Cebu Portland Cement Company, about 6 million pesos; Insular Sugar Refining Corporation, 3.1 million pesos; and People's Homesite Corporation, 2 million pesos.

Changes between pre-war and post-war investments of the National Development Company are shown below. The company's investments, which totalled about 33 million pesos in 1941, increased to almost 52 million pesos by the end of 1949.

2. *Activities during Commonwealth period*

The early efforts of the National Development Company were concentrated mainly on domestic processing of food and manufacture of clothing, but the company also attempted to encourage and advance the growth of general industrial activity.

The National Food Products Corporation, capitalized at 2.5 million pesos, was one of the first subsidiaries to be organized by the National Development Company. The ultimate aim of the corporation was to eliminate the necessity for importing tinned foods. In 1939, the tinning

NATIONAL DEVELOPMENT COMPANY INVESTMENTS, 1941, 1948 AND 1949
(In thousands of Philippine pesos)

Type of investment	*30 June 1941*	*Year ended 31 December 1948*	*31 October 1949*
Subsidiaries:			
Cebu Portland Cement Company	5,999	5,999	5,999
Insular Sugar Refining Corporation	3,100	2,728	2,728
National Food Products Corporation	2,500	2,500	2,500
National Warehousing Corporation[a]	510	510	510
National Footwear Corporation[a]	500	500	500
National Rice and Corn Corporation	4,000	—	—
People's Homesite Corporation	2,000	—	—
Joint ventures with private corporations:[b]			
Philippine Air Lines, Inc.	150	2,402	5,902
De La Rama Steamship Lines	6,500	6,500	4,832
Philippine Electrical Company	—	125	500
Compañía Celulosa de Filipinas, Inc.	1,300	1,040	1,040
Projects:			
Textile mills	3,539	1,700	1,386
Malangas coal-mines	731	2,111	2,893
Sabani Estate (agricultural station)	374	623	677
Can manufacturing	285	..	—
Industrial laboratories	48	..	—
Mining Department	1,330	..	—
Rice and Corn Production Administration	—	..	7,397
Nail factory	—	2,165	2,045
Lumber and sawmill	—	2,822	4,606
Pulp and paper mills	—	687	2,523
Steel mills	—	—	218
Shipyard and graving docks	—	—	515
Ship construction[c]	—	—	4,770
Engineer Island shop	—	500	343

Source: 1941 data from reply of Philippine Government, received 4 September 1947, to questionnaire submitted by the Secretariat of the United Nations; 1948 statistics from Philippine Bureau of Census and Statistics; 1949 figures from Statement of National Development Company, 31 October 1949.

— Nil.

.. Not available.

[a] Departments of the National Development Company.

[b] Authorized capital: Philippine Air Lines, Inc., 10 million pesos; De La Rama Steamship Lines, 10 million pesos; Philippine Electrical Company, 2 million pesos.

[c] Construction of 3 ocean-going vessels.

of fish, fruits and vegetables, and the manufacture of tins, were undertaken at strategic points where supplies of such foods as meat, fish, fruit and vegetables were concentrated. Three moderate-sized establishments were installed in Guagua, Pampanga province, in Estancia, Iloilo province and in Manila. The capacity of each unit was 6 million tins of food a year.

The company operated the Sabani Estate and other agricultural stations which conducted experiments and research in rice production, with a view to increasing the output of rice.

Shares of stock in the Insular Sugar Refining Corporation were purchased by the National Development Company late in 1938. However, the return on the Government investment in this enterprise was considered insufficient to warrant continued Government operation at that time.

Study of the feasibility of textile production in the Philippines resulted in the creation of several textile plants. The National Development Company attempted to mechanize local textile enterprises and thus to supplement ancient handicraft methods. The aim was to increase local production and to reduce the country's dependence on cheap imported fabrics, especially from Japan. Imports of textiles from 1936 to 1940 averaged 45 million pesos per year, or about 100 million square metres of textiles, chiefly cotton goods, cotton yarns, raw cotton, rayon goods, burlap and bagging. Prior to the war there were three textile mills,[12] with a total of 19,000 spindles and 1,300 looms, and a combined annual capacity of about 22 million square metres of cloth. In addition, some 50,000 weavers, working chiefly in cottage industries on a part-time basis, annually produced about 3 million square metres of cloth from domestic and imported yarn.

The capacity of the cotton textile mill operated by the National Development Company was 18 million square metres annually—about 20 per cent of total domestic consumption. The pre-war equipment of the mill included 10,200 spindles, 510 looms and the necessary finishing facilities. The company also undertook the manufacture of rayon.

The National Footwear Corporation was organized in December 1939 to protect craft shoemakers in cottage industry. Pre-war annual average consumption of shoes, slippers, etc. in the Philippines was approximately 5 million pairs: 2 million pairs, domestic hand-made leather; 1 million pairs, domestic machine-made leather; 1.8 million pairs, rubber; and 200,000 pairs of imported leather shoes and slippers. Five large commercial factories and thousands of home factories contributed to this production. The National Footwear Corporation sold leather to handicraft shoemakers and distributed the finished products, thus replacing non-Philippine wholesalers whose prices were considered too low for adequate profit margins for the shoemaker. Transactions between the National Footwear Corporation and the shoemakers were facilitated by the Shoemakers' Co-operative Association.

The National Warehousing Corporation was organized in July 1938 to fill the need for warehouses in strategic production centres. The People's Homesite Corporation was also established in 1938 for the purpose of dealing with housing problems of low-income groups.

The National Development Company organized the Cebu Portland Cement Company with an investment of 5.7 million pesos, to operate and enlarge a cement plant in Cebu. The plant had an estimated production of 960,000 barrels in 1939 and capacity for an output of 4,000 barrels a day. The National Development Company also underwrote bond issues of various private corporations.

---

[12] One government-owned and two privately owned.

In its further efforts to promote the growth of industry in the Philippines, the National Development Company surveyed possible sources of hydro-electric power. This survey led to the organization of the National Power Corporation, described below.

The company undertook the operation of coal-mines in Malangas, Zamboanga and in Uling, Cebu. Various mineral surveys and geological surface explorations were undertaken in the search for petroleum. These were later followed by actual drilling operations at Barile, Cebu, until the war caused the projects to be abandoned.

The company undertook extensive research in its industrial laboratory and inaugurated plans for investment in rayon, fertilizer, pulp and paper, as well as in chemical plants for the manufacture of nitric acid, caustic soda, carbon bisulphide and other chemicals. However, the execution of these plans was terminated by the war with Japan.

3. *Later activities and projects*

After the liberation of the Philippines, the National Development Company began to revive its former activities; by the end of 1948 most of its operating units and subsidiaries had resumed their functions.

Expansion of the manufacturing and distributing facilities of the Cebu Portland Cement Company, for example, brought plant capacity to 24,000 bags of cement daily, or twice the 1947 output, and enabled the company to supply local requirements for cement during 1948.

Post-war developments made it possible for two former subsidiaries —the National Rice and Corn Corporation and the People's Homesite Corporation—to repurchase the stock investments held by the National Development Company and to become independent agencies. Two other subsidiaries, the National Footwear Corporation and the National Warehousing Corporation, were reorganized as departments, or operating units, within the company. The Agricultural Machinery and Equipment Corporation, a former Government corporation, was also converted into a department of the National Development Company.

Included among the company's post-war activities were projects for the rehabilitation of the Insular Sugar Refining Corporation, the expansion of existing textile mills and the establishment of a lumber finishing plant and of a nail manufacturing plant. In addition, the National Economic Council included the following projects in its approved list for receipt of funds from the Central Bank, under the Government's five-year programme.

Rice, corn and ground-nuts. The National Development Company proposed a five-year programme for operating two projects of 10,000 hectares each for growing rice and corn. The estimated capital requirements of the rice and corn production projects were 5.1 million pesos, of which 1.6 million pesos was to be apportioned for the first year, 1.4 million pesos for the second year and 2.1 million pesos for the third year. It was expected that, within three years, one of the projects would no longer need cash advances to meet its operating expenditures. A surplus of 3.2 million pesos was anticipated during the fourth year, and the net profit for the fifth year was expected to be about the same. The project was expected to reimburse all cash advances in full.

The anticipated high return on investment in the project was based on the assumption that approximately 300,000 cavans[13] of paddy rice, 40,000 cavans of corn and 72,000 piculs[14] of ground-nuts would be harvested annually from each of the 10,000-hectare projects.

In accordance with the five-year development programme, the title to the land in the projects was to be transferred to settlers and workers, who were expected to continue operating their small shares of the project. In effecting these transfers, the so-called Rice and Corn Production Project was to collect 200 pesos for land improvement from each settler. The National Development Company planned the use of modern farm machinery on the projects and anticipated that, after the first five years, three or four similar projects could be undertaken without further loans.

Pulp and paper mill. The National Development Company proposed to produce pulp, kraft paper, news-print, bags, and other paper products from local materials. These products were expected to supply paper bags for the cement, lime, refined sugar and dessicated coco-nut industries, to produce kraft paper for the local paper and paper products industry, to supply needed news-print and to aid the hemp and lumber industries by utilizing their waste products.

The National Development Company acquired the Osborne Paper Mill, with a daily capacity of 20 to 25 tons of kraft paper, and proposed to make it the principal operating unit of the project. The mill was scheduled to use imported pulp in manufacturing paper and was also expected to be supplied by two proposed ten-ton pulp mills, one to be located in Albay and the other in Davao. The National Development Company also proposed a factory to produce paper bags.

Total capital expenses for the Albay Pulp Mill were estimated at 1.1 million pesos, and the purchase and installation of machinery for the manufacture of paper bags, at 400,000 pesos; an appropriation of 1.2 million pesos was set aside for other capital expenses.

Shipbuilding yard and graving-dock. The National Development Company also proposed the construction of a shipbuilding yard and graving-dock, with capacity for dry-docking vessels up to 10,000 gross tons. The Mariveles-Sisiman harbour at Bataan was suggested as a possible site. It was proposed to build ferries, tugboats, barges, inter-island cargo and passenger vessels and boats for fishing and carrying ores. Heavy industrial machinery for sugar mills, railways, mines, paper mills and other industrial plants was also to be constructed.

---

[13] One cavan equals 44 kilogrammes.

[14] The Philippine picul equals about 63.25 kilogrammes, or 139.4 pounds avoirdupois.

The sources of material for this project were expected to include reparation items from Japan to the value of 2.92 million pesos and materials worth about 3.6 million pesos from a shipyard in the United States. Of the reparations due from Japan, the National Development Company received 2 million pesos worth of machine tools and machinery for the operation of the shipyard.

Pending completion of the final detailed plans, capital investments for this project were estimated at 16 million pesos, of which the initial investment was to be about 8 million pesos.

B. National Abaca and National Coco-Nut Corporations

In connexion with the five-year Government programme, funds were also ear-marked for various projects proposed by Government corporations other than the National Development Company. Studies and plans were completed for the following hemp and coco-nut projects.

1. *Hemp*

The aim of the programme of the National Abaca and Other Fibres Corporation was to restore abaca, or hemp, production to its pre-war level of 1.2 million bales yearly. The programme called for an appropriation of 30 million pesos with which to develop and rehabilitate 100,000 hectares of abaca land. It was proposed to develop 10,000 hectares of new abaca plantations in Davao and to restore to cultivation 20,000 hectares of former Japanese plantations in Davao and 70,000 hectares of private abaca plantations in regions outside Davao.

Four or five years after completion of the programme, the estimated yearly production of abaca was expected to regain the pre-war level of output. It was anticipated that the resumption of pre-war production would re-establish Philippine abaca in the world market and, by yielding an income of 120 million pesos annually, would help offset the unfavourable balance of trade.

The National Abaca and Other Fibres Corporation also proposed that loans to be granted by the Government to abaca planters, especially those for opening new fields, should be channelled through the corporation, in order to ensure closer supervision and repayment of loans.

2. *Coco-nut by-products*

The National Coco-Nut Corporation prepared a detailed plan for the development of the coco-nut industry. The chief objective of the plan was to utilize the by-products of the industry and thereby lessen the country's dependence on the sale of copra. The corporation recommended:

(*a*) Installation and immediate operation of a complete coco-nut oil mill in Mindoro. It was estimated that 200,000 pesos would be needed to complete the construction of buildings and an additional 100,000 pesos would be required for the installation of oil machinery.

(*b*) Rehabilitation and operation of the Alaminos industrial plant for the production of coco-nut fibre, coco-honey, matting and, when equipment should become available, edible oils. The cost was estimated at 100,000 pesos.

In addition to the industrialization programme, which was considered of prime importance, the National Coco-Nut Corporation planned the immediate resumption of copra trading in its purchasing agencies, located in the provinces of Quezon, Bicol Mindoro, North Mindanao and Davao. It was estimated that an operating capital of 2 million pesos would be sufficient to support the firm's operations from February to the end of June 1949.

In addition, the corporation prepared a five-year plan entailing a total capital outlay of 5 million pesos for the operation of ten purchasing agencies to handle a total of 125,000 tons of copra a year. Operation of these agencies was expected to yield a profit of 1.25 million pesos a year, to be used for financing the operations of the National Coco-Nut Corporation in improving the quality of products, securing new markets and developing the coco-nut industry generally.

It was also planned to establish a factory for the manufacture of wall-board from coco-nut husk—insulating material needed for building projects throughout the country. This undertaking would require an outlay of 1.5 million pesos.

C. National Power Corporation

A power and fuel survey of the Philippines in 1937 estimated the total capacity of prime movers for public utilities and industry at 250,000 kilowatts. The 207 central plants furnishing power to the general public had a total capacity of 70,902 kilowatts, of which 29,530 kilowatts were generated in steam stations, 21,268 kilowatts in Diesel plants and 20,104 kilowatts in hydro-electric stations. These plants delivered electricity to fewer than 350 of the 1,175 cities and municipalities of the Philippines and supplied about 1.3 million, out of a population which then totalled 14.5 million.[15]

The National Power Corporation, organized in 1937 to develop the country's power resources, undertook as its first project the construction of the Caliraya River plant on the island of Luzon. Shortly after liberation, the plant, which had been badly damaged during the war, was repaired and placed in operation by the corporation. This project, the largest hydro-electric plant in the Philippines, had an initial capacity of 27,000 kilowatts in three units and was expected to have a capacity of 36,000 kilowatts upon installation of the fourth unit.

---

[15] American Society of Civil Engineers, "Philippines Initiate Program of Hydro-Electric Construction" by Filemon C. Rodríguez (Manager, National Power Corporation), *Civil Engineering*, July 1949.

In order to ensure full co-operation among all segments of the industry, the corporation adopted a threefold policy: (*a*) to undertake, as its primary objective, the development of the nation's water power resources in order to increase the country's power supply while reducing the importation of fuel; (*b*) so far as possible, to sell power wholesale to franchise holders for distribution to the ultimate consumer and not to compete in the retail power market in areas covered by existing electric utility franchises; and (*c*) to encourage municipal governments to distribute power and to encourage co-operatives or other private utilities to secure franchises in areas without operating utilities. Thus the corporation was to refrain from local power distribution as far as possible. However, rates charged to the general public by distributing concerns were subject to the supervision and control of the Public Service Commission.

In 1947, after almost ten years of forced inactivity—utilized, however, for the preparation of studies and plans for electric power development—a five-year power programme was approved by the Philippine Government. This programme called for installation within the following five years of three hydro-electric power stations, river diversion to increase water storage for an existing station and erection of a chemical fertilizer plant. The selection of projects for this initial phase was based on the prospect of their becoming self-liquidating and the feasibility of their estimated construction costs.

The most important undertaking in the five-year programme was the Ambuklao project on Luzon, which was to include two storage reservoirs, several dams and two hydro-electric plants to be erected on the upper courses of the Agno River—one near the headwaters at Ambuklao, with a capacity of 72,000 kilowatts, and the other down-stream at Itogon, with 86,000 kilowatt capacity—together with transmission lines and substations to serve the power needs of the Baguio and Manila areas.

Construction was begun on a second Luzon project, which consisted of a dam on the Lumot River for diversion of water into the Caliraya reservoir to increase the power output of the Caliraya power plant, mentioned above, by 50 million kilowatt-hours per year.

The third proposed project was planned for the island of Mindanao, in the Agus River and Lake Lanao basin, the cheapest potential source of large blocks of power in the Philippines. Initial development in the basin involved a plant at Maria Cristina Falls, with a planned capacity of 80,000 kilowatts. The chief purpose of this installation was to provide power for a chemical fertilizer plant to supply low-cost fertilizer needed for increased agricultural production. The proposed plant, a first step in the industrial development of Mindanao, was expected to produce 126,000 metric tons of ammonium sulphate annually. Further developments on the 24-mile Agus River were expected to yield more than 700,000 kilowatts of cheap hydro-electric power eventually and to make Mindanao a future centre of heavy industry.

The table below gives the estimated costs of items proposed under the programme.

ESTIMATED COST OF FIVE-YEAR POWER PROGRAMME
(In thousands of United States dollars)

Project	*Capacity (thousands of kilowatts)*	*Material, equipment and services from United States*	*Material and labour obtainable in Philippines*	*Interest charges during construction*	*Total cost of project*
Ambuklao	72	15,779	6,412	1,958	24,149
Itogon and transmission to Manila	86	25,199	6,948	2,825	34,972
Lumot dam		2,241	899	151	3,291
Maria Cristina	80	8,102	2,846	795	11,743
Fertilizer plant	126[a]	11,485	1,913	966	14,364
TOTAL		62,806	19,018	6,695	88,519

Source: Philippine Chamber of Commerce, "Five-Year Plan of the Hydro Electric Programme", *Commerce,* January and February 1949.

[a] Thousands of tons per year.

It was planned to finance the Ambuklao project in part by a loan from the International Bank for Reconstruction and Development, for which the Philippine Government entered into negotiations. Of the total amount needed for the project, US$15 million was expected to be made available by this loan, and the Philippine Government was to provide the sums to be expended locally.

In 1948 the National Power Corporation adopted an additional programme to develop eight minor hydro-electric sites in different parts of the country. The total capacity of the eight projects was estimated at 8,000 kilowatts, and the cost at 10 million pesos, to be financed largely from the income of the corporation. Although they represented only a small addition to total power capacity, they were expected to pave the way for the growth of small industries in the sections where the projects were located.

Completion of the five-year power programme was expected, not only to increase greatly the available supply of cheap electricity for larger numbers of consumers, but also to provide opportunities for industrialization and the mechanization of agriculture in the Philippines.

D. NATIONAL RICE AND CORN CORPORATION

Although rice is the principal crop of the Philippines, the country has not produced enough rice to meet the food requirements of the population. The National Rice and Corn Corporation was established in 1936 to attempt to provide a solution to serious problems of price stabilization and systematic distribution of this major crop.

1. *Functions*

The corporation's main responsibility was the stabilization of the price of rice and corn throughout the year—at a price attractive to producers and within the purchasing power of consumers. The corporation was expected to import rice and corn whenever necessary to ensure a sufficient supply of these staple foods of the Philippine population. Since the corporation had limited funds, it was constrained to carry out its responsibilities without loss of capital.

The National Rice and Corn Corporation was empowered to buy, sell, import and export rice, corn and their by-products, in order to achieve its objectives. It was also authorized to import rice free of duty and to act as a relief organization whenever warranted by the general economic situation of the country. When directed by the President of the Philippines, the corporation was authorized to inventory existing stocks of these commodities in the possession of private individuals and merchants. The corporation was also empowered by law to operate bonded warehouses for the storage of privately owned cereals.

The National Rice and Corn Corporation established its main office in Quezon City and operated branches in Cebu; Cabanatuan, Nueva Ecija; Iloilo; Dulawan, Cotabato; and Naga, Camarines Sur and Santiago, Isabela. The corporation maintained large warehouses for imported rice in Manila and Cebu, and smaller ones in Iloilo and Legaspi. For purchasing local harvests, it had branch offices and buying stations throughout central Luzon Valley, Cagayan Valley and in Cotabato Valley in Mindanao; and also in the provinces of Capiz, Iloilo and Camarines Sur in north-eastern Luzon—all rice-surplus regions.

The authorized capital stock of the National Rice and Corn Corporation was 4 million pesos, in shares of 100 pesos each. The National Development Company was the sole stockholder until 1948, when the corporation became an independent agency. During the pre-war period the corporation operated within its own funds, but during the post-war rice crisis the corporation financed its greatly increased imports and local purchases by means of loans from the Philippine National Bank, a government-owned institution.

2. *Price stabilization*

The prices of rice and corn were stabilized by the National Rice and Corn Corporation, which established guaranteed prices to the producer for raw cereals and selling prices for milled products, to bring them within reach of the consumer. In this way, producers—particularly small producers—were protected from speculative price fluctuations, especially early in the harvest, when they usually found it necessary to market crops quickly; other buyers had to meet the guaranteed price offered by the corporation.

In abundant harvests, the National Rice and Corn Corporation bought large quantities of raw cereals to take advantage of low prices and deposited them, often for long periods, until prices rose, and the law required it to mill and sell in the market. When commodities were scarce and prices high, the corporation bought very little, and if prices of milled cereal exceeded the fixed price, the corporation milled cereals in stock and offered them in the market until a more satisfactory price level was established. If the corporation's supplies were insufficient, it imported cereals in quantities needed, not only to cover requirements, but to bring prices down to predetermined levels. It was therefore necessary for the corporation to stock sufficient quantities of the two cereals to discourage speculation. The differential between the guaranteed price to producers and the fixed selling price in the market allowed merchants a reasonable profit, while ample stocks forced them to operate within the differential. The law also provided that the corporation should devise means of distribution in order to reach consumers through the fewest possible number of middlemen.

During the years 1935 to 1939, local production of rice fell below requirements by an average of 57,000 short tons per year. The corporation imported sufficient quantities of rice each year (to a maximum of 110,000 tons) to stabilize the price.

Because of acute shortages and the black market in rice at the end of the war, the Government designated the corporation as the sole importer of rice and corn into the Philippines. The rice crop of the 1945/46 season fell short of estimated needs by about 600,000 tons, and the deficit was met in part by 221,211 tons of rice imported by the corporation and in part by the use of substitutes, such as corn and tubers.

3. *Other activities*

The corporation undertook research in processing and increasing the use of rice and corn, in order to raise the income of producers and to provide for the eventuality of surplus production. It completed research in the extraction and refining of rice oil for table use and the manufacture of building boards from rice husks and rice straw. It also studied the feasibility of a starch factory to utilize surplus corn production in north-eastern Luzon.

In addition, the corporation inaugurated modern practices in storing cereal by erecting well ventilated warehouses, by using grain driers, and by fumigation and effective rat control.

Immediately after the war, the corporation sent emergency relief to various parts of the Philippines, to prevent famine in the provinces. In order to cope with the rice shortage, the corporation also enforced a plan of rationing, through consumer co-operative associations which were the media for rice distribution to consumers. In 1948, because production appeared sufficient for domestic requirements, the corporation used a system of allocation to wholesale distributors in place of rationing.

E. National Tobacco Corporation

The general objectives of the three agencies which were established before the war to further the Government's plans for export crops of tobacco, abaca and coco-nut were similar, though their operations differed somewhat because of variations in the industries. The following brief account describes the functions and activities of the National Tobacco Corporation, which were generally similar to those of the National Abaca and Other Fibres Corporation and the National Coco-Nut Corporation, whose post-war plans were summarized above.

1. *Functions*

The National Tobacco Corporation was created in 1940 by Commonwealth Act 519 for the following purposes:

To foster the effective merchandising of leaf tobacco in domestic and foreign markets in order to promote the economic security of tobacco farmers and labourers;

To establish and maintain a satisfactory balance between production and consumption of leaf tobacco and to promote better marketing conditions, in order to ensure the payment of living wages to tobacco farmers and labourers;

To improve the economic condition and the living standards of tobacco farmers and labourers and to raise existing low wages in the industry gradually; and

To improve the quality of the various types and varieties of leaf tobacco grown in the Philippines.

In order to accomplish these objectives, the National Tobacco Corporation was given authority: (*a*) to sell, buy, import, exchange, handle and deal in leaf tobacco and its manufactures; (*b*) to own, lease and operate all means of land, water and air transportation, as well as warehouses, machinery and equipment for the storage, handling, use and sale of tobacco and its manufactures; (*c*) to provide credit facilities to tobacco planters directly or through credit co-operative associations or other financial institutions; (*d*) to promote, foster and encourage the organization of co-operative associations among tobacco producers and dealers and, if conditions warrant, to manage such associations; (*e*) to supply or help to supply necessary capital to co-operatives organized under existing laws and regulations; and (*f*) to act as agent, broker or commission merchant and to organize producers' co-operative associations.

2. *Capitalization and activities*

The National Assembly authorized a capitalization of 10 million pesos to be derived from the coco-nut excise tax fund,[16] of which 2.1 million pesos was made immediately available to the corporation to finance its operations. In 1948, at the corporation's request, the Government appropriated the sum of 3 million pesos as additional capital.

Warehousing facilities in the Cagayan Valley were restored by the corporation for the benefit of tobacco growers and dealers, and several pieces of land in the provinces of Cagayan and Isabela, together with 21 warehouses and accessories and improvements, were purchased for a total of 175,000 pesos.

The corporation purchased 14,594 quintals of leaf tobacco,[17] at a total cost of 189,347 pesos, direct from farmers—at higher prices than they would otherwise have received. It gave needed financial aid in the form of loans to tobacco producers.

By minimizing illicit trafficking in leaf tobacco and curbing the illegal manufacture of cigars and cigarettes, the corporation indirectly aided the collection of taxes.

The tobacco trade in both domestic and foreign markets was promoted by means of effective systematic surveys and publicity.

The corporation also organized producers' co-operative associations to improve economic conditions and living standards by co-operative efforts among planters.

With the additional capital of 3 million pesos, referred to above, the corporation planned to undertake a comprehensive programme to modernize and mechanize tobacco cultivation in order to increase production; to improve tobacco seed and the quality of various types of leaf tobacco; to increase the production of cigar-filler tobacco during a period of three to five years, because of shortages of this type; to increase production of cigar-wrapper and yellow leaf tobacco in order to attain self-sufficiency: to develop methods of blending and flavouring aromatic cigarettes and foreign-style tobacco; and to encourage the manufacture of aromatic cigarettes.

In order to stabilize prices, the corporation also planned to regulate the production of leaf tobacco by assigning quotas for the various tobacco regions.

---

[16] Most Commonwealth agencies were capitalized from this fund.

[17] Spanish quintals, of 46 kilogrammes each.

F. Financial Institutions[18]

Two of the financial institutions owned by the Government were directly concerned with the execution of its economic programme—the Central Bank of the Philippines and the Rehabilitation Finance Corporation. An additional bank, the Philippine National Bank, an important source of the nation's commercial credit, financed private rather than public enterprises.

To ensure effective contribution by its financial institutions to the successful rehabilitation and development of the country's economy, the Philippine Government, in agreement with the Government of the United States, early in 1947 undertook a survey of budgetary and financial problems through the Joint Philippine-American Finance Commission, mentioned above. The findings of this commission resulted in specific proposals for an integrated financial programme, which the Government undertook to follow, with slight variations to fit changing conditions. As a result, the Government instituted reforms in tax and banking policies—it liberalized loans and strengthened and expanded saving facilities of financial institutions; established an import quota system in order to control foreign exchange and to cut down imports of non-essentials; and in 1949 established the Central Bank of the Philippines, to act as a monetary and banking authority in order to aid the Government in carrying out its five-year economic programme.

1. *Central Bank of the Philippines*

Republic Act 265, which created the Central Bank and vested it with wide powers, defined its objectives as follows:

(*a*) To maintain monetary stability in the Philippines;

(*b*) To preserve the international value of the peso and the convertibility of the peso into other freely convertible currencies; and

(*c*) To promote a rising level of production, employment and real income.

To accomplish the latter objective, the Central Bank planned to advance funds to the Government for financing the programme of economic rehabilitation and development. The Central Bank Act provided that until 30 June 1951 the Bank might make direct advances to the Government in an amount not exceeding 200 million pesos, which might be utilized only for productive and income-producing projects specifically authorized by law, or for the repayment or servicing of the external obligations of the Government.

In an effort to promote the expansion of the national economy, the Central Bank approved an initial advance of 115 million pesos for 1949; of this amount, 50 million pesos was to be used to amortize the budgetary loan of $60 million which the Government secured from the United States Reconstruction Finance Corporation and 65 million pesos was to finance the rehabilitation and development programme of the Government, as recommended by the National Economic Council. The allocation of 65 million pesos was expected to meet the 1949 capital requirements of various Government enterprises and private entrepreneurs whose resources did not permit substantial additions to plant and equipment. It was planned to allocate 35 million pesos of this amount for advances to the Rehabilitation Finance Corporation, and 30 million pesos for loans to private enterprises and to Government instrumentalities that could not borrow from the Rehabilitation Finance Corporation.

---

[18] More detailed information on problems of domestic financing of economic development in the Philippines is contained in United Nations document E/1562 (mimeographed), pages 237 to 250.

2. *Rehabilitation Finance Corporation*

As a result of the major need for credit to finance commercial and foreign exchange transactions, the Government established the Philippine National Bank, a commercial bank exclusively, to help small producers market their products abroad. The Philippine National Bank was the only bank which provided banking facilities outside Manila and some of the larger cities.

In 1939 the Commonwealth Government organized the Agricultural and Industrial Bank to meet the pressing need of longer term mortgage credit for agricultural and industrial development.

In the post-war period, the rehabilitation and development needs of industry and agriculture created an even greater demand for credit, largely for long-term capital financing—beyond the scope of commercial banking. To handle this demand, the Government, in October 1946, organized the Rehabilitation Finance Corporation, which was officially opened for business on 2 January 1947.

Capitalization. The authorized capital of the Rehabilitation Finance Corporation of 300 million pesos was to be obtained by selling about 200 million pesos of United States surplus property given to the Philippine Government; withdrawing up to 100 million pesos from the Treasury Certificate Fund, which represented excesses in reserves because of currency lost or destroyed during the war; and absorbing about 20 million pesos of the assets of two existing Government corporations, the Agricultural and Industrial Bank and the Financial Rehabilitation Board.[10]

The Rehabilitation Finance Corporation was empowered under its charter to borrow funds by means of bond issues. The corporation planned to stimulate investment by persons with limited funds as well as by wealthy individuals and financial institutions. It was particularly interested in promoting active participation on the part of large numbers of small investors for whom bonds of the Rehabilitation Finance Corporation afforded an investment that was both secure and liquid. The bonds were similar to bank deposits in that they were redeemable on demand, at the option of the holder, sixty days after issue. Their yield was higher than the interest on bank deposits, and they were backed by the assets of the corporation and the guarantee of the Philippine Government.

---

[10] A post-war board which was established to rehabilitate the financial institutions of the country, chiefly those owned by the Government. The Board and the Agricultural and Industrial Bank were absorbed by the Rehabilitation Finance Corporation on creation of the latter in 1947.

Functions and activities. The Rehabilitation Finance Corporation extended financial help in the form of long-term loans for the purposes of construction or reconstruction of residential and commercial buildings, reconstruction of pre-war essential industries, purchase of draught animals and agricultural implements and equipment to replace those lost or destroyed, rehabilitation of provincial or municipal income-producing and self-liquidating projects and provision of housing for the homeless. To help the progressive expansion of the national economy, the corporation also extended loans for the purpose of establishing new essential industries; developing uncultivated agricultural lands; expanding old industrial plants, such as cement and oil factories; and producing goods that were usually imported, such as plastics, construction materials and other essential commodities. The loans were for long terms, adjusted to the nature of the undertaking and the income of the borrower. Interest rates differed for various types of loan.

Loans were also to be granted by the corporation for construction of labourers' houses, warehouses, drainage systems, irrigation canals and paddies; clearing and planting of lands; and purchase of tractors, draught animals, irrigation pumps and other implements and equipment. These loans were for a period of five or ten years, with an interest rate of 4 per cent per annum, and were to be amortized by annual instalments. The corporation gave preference to small farmers and restricted its loans for capital expenditures to farms. Crop loans and short-term loans for financing cultivation were not granted because commercial banks made such loans.

The Rehabilitation Finance Corporation approved 9,507 loans totalling 173 million pesos between 2 January 1947 and 30 November 1948, classified as follows:[20]

	Number	*Amount (In thousands of pesos)*
Real estate	5,604	87,895
Industrial	302	47,082
Agricultural	3,529	22,295
Landed estates	7	9,281
Self-liquidating Government projects	61	5,371
Rehabilitative building and loan associations	4	1,150
TOTAL	9,507	173,074

---

[20] Philippine Bureau of Commerce, *Basic Facts and Figures on the Progress of Philippine Rehabilitation and Reconstruction* (Manila, 5 July 1949).

These loans were used for the construction of 3,850 residential and 163 commercial buildings, a total of 4,013; the repair of 426 buildings; the development of 245 factories, 5 sugar mills and 52 utility projects; the rehabilitation of agriculture, notably paddy rice, sugar, coco-nut, corn and other staples; the development of fish-ponds; the purchase by the Rural Progress Administration of 14 landed estates to be subdivided and resold to tenants and other landless dwellers; the execution of income-producing and self-liquidating projects, including public markets, waterworks, toll bridges and slaughter-houses throughout the islands; and the rehabilitation of financial institutions, such as banks, life insurance companies and building and loan associations.

The total agricultural loans, of nearly 22.3 million pesos, financed the cultivation and improvement of 163,724 hectares of agricultural land. Of this land, 98,413 hectares was planted to rice, corn and other staple crops; 24,116 hectares, to sugar-cane; 20,378 hectares, to coco-nut; and the rest, to other crops.

The terms of the loans granted for industrial rehabilitation and development usually ranged from one year to ten years, but longer terms were made possible; they were repayable, with interest at the rate of 4 per cent per annum, in yearly, semi-annual, quarterly or monthly amortizations—according to the income that the borrower derived from the project.

The total industrial loans of 47.1 million pesos were distributed as follows: factories, 18.8 million pesos; sugar mills, 16.6 million pesos; and utilities, 11.7 million pesos.

The real estate loans were used for the construction of residential buildings, 68.1 million pesos; commercial buildings, 13.1 million pesos; repairs of buildings, 5.1 million pesos; and investment in real estate, 1.2 million pesos.

Loans for self-liquidating public projects, such as markets, waterworks and toll bridges were granted on the same basis as those for other commercial or private business undertakings. The terms were usually ten years, with 4 per cent interest per annum. The corporation approved 61 loans of this kind, amounting to 5.4 million pesos.

IV. Agrarian measures

More than half the land in the Philippines is considered arable, but only 13.3 per cent of the total area was actually under crop in 1939. About half the total of 1.6 million farms were tilled by their owners, and an additional 15.6 per cent were partly owned by the farmers. Tenants tilled about one-third of the farms and about one-third of the land under cultivation.

Nearly three-fourths of all farms in the Philippines are small, with fewer than three hectares of land under cultivation; these farms accounted for about 38 per cent of the total cultivated area. Approximately one-fourth of the farms consisted of from three to ten hectares; these comprised 36 per cent of the total cultivated area. Only 4 per cent of all farms were ten or more hectares, but these accounted for more than 25 per cent of the area under cultivation.[21]

Government attempts to solve agrarian problems have taken three forms: legislative measures to regulate the relationship between tenant and landlord; Government purchase of landed estates for resale to tenants; and government-sponsored agricultural colonization on public land.

A. RICE SHARE TENANCY ACT

In February 1933 the Philippine Legislature passed Act 4054, "to promote the well-being of tenants in the agricultural lands devoted to the production of rice and to regulate the relations between them and landlords of the said lands and for other purposes". The law was to become effective only in provinces where the majority of the municipal councils petitioned the Governor-General; he was then empowered to make the law effective by proclamation.

Many municipalities did not submit the necessary petitions, and the act was amended by Commonwealth Act 178, which made the earlier act effective upon proclamation. The act was then proclaimed effective in the twelve provinces with the greatest number of large estates. Since the act could not prevent disputes between tenant and landlord, and landlords were reported to have threatened the dismissal of tenants who demanded its observance, the National Assembly passed Commonwealth Act 461, which provided for compulsory arbitration of all disputes by a representative of the Department of Justice; it gave the landlord and the tenant the opportunity of appealing to the Court of Industrial Relations in case either objected to a decision of the Department of Justice.

In the main, the Rice Share Tenancy Act, as amended, provided that contracts between landlord and tenants were to be written in the local dialect and to remain in effect for one year, unless there was an agreement to the contrary. It also provided that the costs of transplanting, harvesting, irrigating and fertilizing were to be borne equally by the landlord and the tenants, and the crop was to be divided equally. The act limited the interest on advances obtained by tenants to 10 per cent and allowed tenants 15 per cent of the crop, regardless of the extent of their indebtedness. It also contained provisions to restrain landlords from dismissing tenants, and tenants from leaving landlords, before the expiration of contract.

---

[21] Bureau of Census and Statistics, *Yearbook of Philippine Statistics, 1944* (Manila, 1947).

After the inauguration of the Republic, the Philippine Congress amended the Rice Share Tenancy Act provision for equal division of the crop, to provide for a 70-30 share in favour of the tenant, after deduction of costs.

B. PURCHASE OF LANDED ESTATES

In July 1936, the National Assembly authorized the Government to negotiate for the acquisition of portions of large estates which were occupied as home sites by tenants, and to initiate expropriation proceedings where necessary. The Landed Estates Survey Committee was created in October 1937 to plan a long-range policy programme for landed estates. Late in 1938, the Commonwealth Government organized the Rural Progress Administration and entrusted it with the execution of Government policy regarding landed estates. In 1941, the Rural Progress Administration controlled the home-site sections of eight large estates. The home sites were acquired by the Government to provide tenants with home lots from which they could not be dispossessed when dismissed as tenant farmers.

The Republic extended the work of the Rural Progress Administration by committing the Rehabilitation Finance Corporation to a loan of 500,000 pesos for the purchase of eight additional landed estates, with a total area of more than 43 million square metres, for resale to tenants.

C. NATIONAL LAND SETTLEMENT ADMINISTRATION

Prior to the establishment of the Philippine Commonwealth, various government-sponsored agricultural colonies were founded by the Philippine Government: six in the province of Cotabato, one in Lanao, one in Bohol and one in the Cagayan Valley of Luzon. These failed in their purpose of encouraging migration; surveys in 1928 showed that the six colonies in Cotabato had only 8,000 colonists, including dependants, who owed the Government approximately 372,000 pesos. Lack of funds and means of obtaining funds discouraged would-be settlers. Hasty selection of sites, poor transportation and inadequate governmental administration and supervision were advanced as the causes for the failure of the colonies to attract a large number of settlers. During the years 1918 to 1939, inclusive, it was estimated that a total of 9,172 families consisting of 46,712 persons, or an annual average of 417 families of 2,123 persons, had migrated to the colonies.[22]

In its effort to further land settlement, the Commonwealth of the Philippines created the National Land Settlement Administration by passage of Commonwealth Act 441 in June 1939. Passage of the act followed intensive study of a number of plans which were prepared with the assistance of both Philippine and outside advisers; to avoid the mistakes of previous attempts at colonization, numerous surveys for land settlement projects, including extensive road-building and public land surveys, were made by specialists prior to the establishment of the agency.

---

[22] Institute of Pacific Relations, *Pioneer Settlement in the Asiatic Tropics*, by Karl J. Pelzer (New York, 1945), page 129.

Although governmental administration and supervision of land settlement ceased during the war, the National Land Settlement Administration was re-established by the passage of Commonwealth Act 711 soon after the liberation of the Philippines.

1. *Functions*

The functions of the National Land Settlement Administration, managed by a board of five members, were defined as follows:

(*a*) To facilitate the acquisition, settlement and cultivation of lands, whether acquired from the Government or from private owners;

(*b*) To assist small farmers, tenants and trainees in the acquisition of farms;

(*c*) To encourage migration to sparsely populated regions and to facilitate the intermingling of people from different sections of the Philippines; and

(*d*) To develop new cash crops to replace export crops which were scheduled to lose their preferential status in the United States market.

In order to attain these objectives, the agency was empowered to hold public agricultural land for twenty-five years; to recommend to the Government reserves of public land suitable for agricultural colonization; to survey and clear land and distribute it to settlers; to build and operate irrigation systems; to establish trading stores and credit agencies for settlers, who would be charged a rate of interest not to exceed 6 per cent per annum; and to engage in manufacturing, milling, lumbering and other activities considered necessary for successful colonization.

2. *Capitalization and organization*

The authorized capital of the National Land Settlement Administration was fixed at 20 million pesos, to be financed by a maximum annual appropriation of 5 million pesos from the coco-nut oil excise tax fund. The initial paid-in capital was 5 million pesos. At the outbreak of war, the agency had expended 4.9 million pesos, largely for advances to settlers and outlays for machinery, buildings, wells, irrigation systems and health protection. The income from the Koronadal and the Mallig projects, described below, consisted mainly of interest payments by settlers, and receipts from the sale of cash crops and from various projects of the administration farms. An additional 5 million pesos was appropriated for the agency after its re-establishment; approximately 3 million pesos of this sum was spent by 30 June 1947.

A central settlement office was established in Quezon City, and offices were also maintained in the administrative centre of each colony. The agricultural colony of Koronadal was divided into settlement districts. Each district, under an overseer and a staff of assistants, had an administrative and economic centre around which the villages were located.

Provision was made for the establishment of trading stores or co-operatives to supply settlers with basic necessities at cost, on either a cash or a credit basis. In order to help settlers market their products at the best possible prices, the agency established a central marketing organization.

The act established detailed requirements for admission to the colonies: the settlers must be adult Philippine or United States citizens, preferably not over forty years of age; married, with children; healthy, in order to withstand the hardships of pioneering; with some agricultural experience; of good character and reputation; and qualified to apply for public land under the Public Land Act.

The contract signed by the settler defined the relationship between the settler and the National Land Settlement Administration and stated the obligations of the settler. These included the obligation to plant and cultivate the land assigned to him, in crops prescribed by the agency; to engage in agriculture, exclusively, unless the agency approved another trade or occupation; to retain the land for ten years or to transfer it only by bequest during that period; to reimburse the agency, within twenty years, at 4 per cent interest, for transportation, building materials, food and clothing; and to deposit all surplus products in the agency's warehouses for sale through the agency. Payments were scheduled to begin after the third year, and were not to exceed 30 per cent of the proceeds of sales made through the agency.

The National Land Settlement Administration was obligated under the contract to advance the cost of transporting the settler and his dependants; to assign each settler a parcel of twelve hectares[23] of agricultural land; to supply him with building materials on a credit basis and with food until he became self-sufficient; and to make available for his use machinery such as tractors and ploughs, as well as planting materials, fertilizers, livestock and agricultural implements. The agency contracted to sell, on behalf of the settler, products deposited by him in its warehouses and to give him full title to the land after all obligations were paid.

---

[23] In May 1946 the directors of the National Land Settlement Administration limited to six hectares the land allotted to settlers whose farms were located along the national highway.

3. *Koronadal Valley project*

The National Land Settlement Administration chose the Koronadal Valley of 97,000 hectares in south-eastern Cotabato as the site for its first large-scale colonization project in 1939. Other settlements followed: the Ala Valley settlement adjacent to the Koronadal Valley in the province of Cotabato, consisting of 110,000 hectares; the Mallig Plains development in the province of Isabela, of 64,597 hectares; a project in the Compostela-Monkayo region in the province of Davao, consisting of 73,300 hectares; and the Negros Plains project in the province of Negros Occidental, comprising 162,400 hectares. Of these areas reserved for settlement and development purposes, the Koronadal and Ala valleys in Mindanao, and the Mallig Plains project in Luzon, were in process of development before the war and had been opened to settlement. The Compostela-Monkayo project was about to be opened when war intervened. The Negros Plains project was announced by executive order after the liberation but was not opened owing to lack of funds.

Koronadal, the site of the most advanced settlement project, was divided into four settlement districts: Lagao, Polomolok, Tupi and Marbel. The main subsistence crops of these districts were rice, corn, sweet potatoes and cassava. In addition, the agency's agricultural experts prescribed the planting, wherever possible, of such cash crops as cotton, onions, soy beans, ground-nuts, rubber, coffee, cacao, cow-peas and black pepper.

The figures below show the increase in the number of residents in the Koronadal Valley project between 1939 and 1948.

NUMBER OF RESIDENTS IN KORONADAL VALLEY PROJECT
1939, 1940, 1941 AND 1948

Year ...	*Employees*	*Dependants of employees*	*Settlers*	*Dependants of settlers*	*Total residents*
1939	14	—	62	6	82
1940	43	55	419	1,169	1,686
1941	150	190	2,513	8,163	11,016
1948	326	764	3,378	13,025	17,493

Source: Insitute of Pacific Relations, *Pioneer Settlement in the Asiatic Tropics,* by Karl J. Pelzer (New York, 1945), page 152; figures for 1948 from Bureau of Census and Statistics, *Journal of Philippine Statistics,* January to June 1949, page 129.

— Nil.

Each settlement had a first-aid station. Each of the four settlement districts of the Koronadal Valley project had a small hospital under the supervision of a doctor and two nurses, and every town of the project had churches and schools.

4. *Plans for development*

In order to further the agricultural objectives of the National Land Settlement Administration, additional plans were undertaken to develop various settlement districts.[24]

A five-year plan, scheduled for completion in 1951, called for a total increase of 304 hectares in arable land on the agency's farms and nurseries in the Lagao, Tupi and Marbel settlement districts of the Koronadal Valley project. Crops to be cultivated under this plan included rice, ramie, cotton, ground-nuts, cabbages and onions. The plan for administration farms and nurseries in the entire Koronadal and Ala Valley projects included six settlement districts to be completed within six years. At the end of this period it was estimated that an additional 1,564 hectares would be planted to rice, corn, ramie and cotton.

The National Land Settlement Administration also operated a cattle ranch, a piggery and a poultry farm; expansion of each of these was planned over a five-year period. It was proposed to establish a new cattle pasture on the agency's cattle ranch, comprising an area of 10,000 hectares, and to reserve the old pasture, of some 700 hectares, for buffalo. The goal of the plan was to increase the cattle population by 2,600 and the number of buffaloes by 195, within five years.

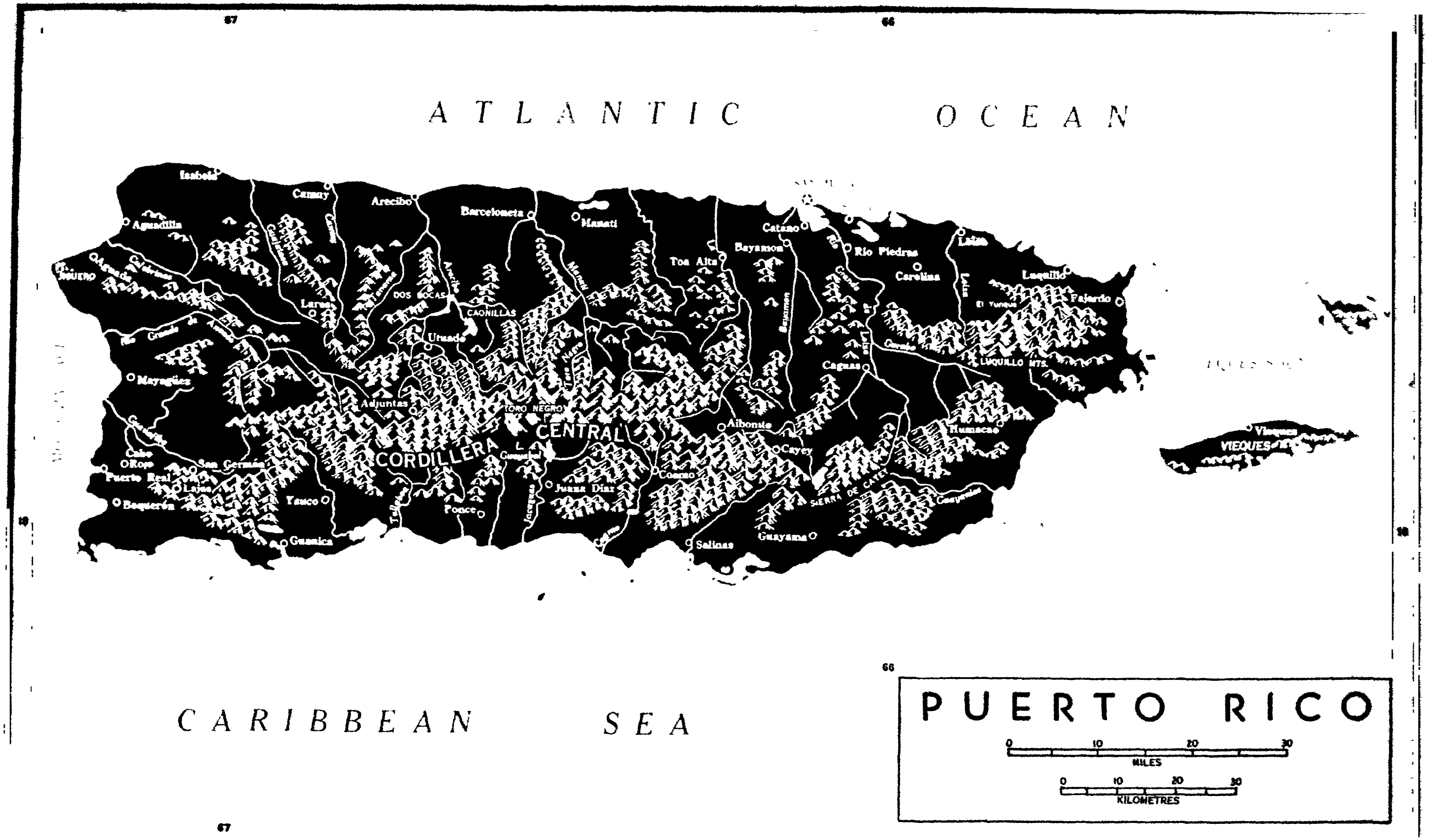
The poultry project was to serve as a source of breeding fowl for purchase by settlers. From an original stock of 200 hens, it was planned, by the end of the five years, to raise 1,000 laying hens which would produce 150,000 eggs annually. The piggery project called for the production of a sufficient number of hogs to meet the demand for breeding hogs as well as for meat consumption. The total number of hogs was to be increased by 3,144 by June 1950.

Particular emphasis in planning was placed on the further development of the experimental farms and nurseries operated by the agency. These were to serve as experimental stations to produce seeds needed in large quantities by the settlers.

---

[24] Philippine National Land Settlement Administration, *Report of August 15, 1946,* mimeographed (Manila, July 1947).

PUERTO RICO



MAP NO. 158.8
FEBRUARY 1950

UNITED NATIONS

UN PRESENTATION [illegible]

PUERTO RICO[1]

I. Economic background

A. RESOURCES

1. *Agriculture*

The economy of Puerto Rico, as of other Caribbean islands, is based on agriculture and for the most part on one crop, sugar-cane. Of the total Puerto Rican land area of 2.2 million acres, 83.6 per cent is in farms; more than half of the farmland is in crops; about a third is cleared or wooded pasture; and the rest, unproductive woodland, rough stony terrain, swamps, beaches and the like. It is estimated that 75 per cent of the arable land requires intensive farming.

Agricultural produce has normally accounted for more than 80 per cent of Puerto Rican exports. The 21.5 per cent of the total population which was gainfully employed in 1940 was classified as follows: agriculture, 40.9 per cent of the gainfully employed; trade, 12.1 per cent; service trades, 11.5 per cent; miscellaneous services, 26.4 per cent; and manufacturing, 9.1 per cent.[2]

Sugar-cane accounted for more than 50 per cent of Puerto Rican agricultural income in 1940. The cultivation of sugar-cane, with the sugar mills and refineries, offered the major source of employment on the island. Tariff protection for the United States market, which includes Puerto Rico, favoured the growth of the sugar industry. Under this protection, the area planted to sugar-cane in Puerto Rico increased fourfold from 1901 to 1939.[3]

Next to sugar, coffee is the most widely cultivated crop. It accounts for 21 per cent of the farm acreage, employs about 45,000 workers and thus furnishes livelihood to an estimated 225,000 persons.[4] Coffee is cultivated by Puerto Rican farmers, who usually own the land. At the turn of the twentieth century, coffee was Puerto Rico's principal export crop and the major source of the island's wealth. However, repeated hurricane damage, loss of markets because of tariff restrictions, high production costs and relatively unstable production caused the value of coffee exports to drop below that of sugar. Since 1930 coffee has been an almost negligible export item, but in recent years the Government of Puerto Rico has appropriated more than $5 million in an effort to rehabilitate the island's coffee plantations. The preservation of the industry is important to Puerto Rico; it furnishes employment to a large number of workers and provides a commodity which would otherwise have to be imported. Although foreign sales have declined, coffee production has been increased in recent years to meet an expanded local demand.

---

[1] Material for this chapter was obtained in the main from information prepared by the Government of Puerto Rico in co-operation with the United States Department of the Interior and transmitted by the United States to the Secretary-General of the United Nations, pursuant to Article 73e of the Charter; including the following mimeographed reports: *Puerto Rico* (Washington, D. C., June 1947), *Puerto Rico* (Washington, D. C., June 1948), *Supplementary Report on Puerto Rico for the Year Ending 30 June 1948* (Washington, D. C., May 1949) and United Nations *Summary and Analysis of Information Transmitted under Article 73e of the Charter*, A/907/Add. 1, 12 July 1949.

[2] United States Bureau of the Census, *Sixteenth Census of the United States: 1940, Puerto Rico, Population, Bulletin No. 3*

[3] Caribbean Commission, *The Sugar Industry of the Caribbean*, "Crop Inquiry Series No. 6" (Washington, D. C., 1945).

Tobacco is the third most valuable export crop of Puerto Rico. Cultivation of tobacco expanded rapidly until the mid-1920's, when market difficulties and production problems forced curtailment. The tobacco crop normally provided the main source of income of some 13,000 farms, or about one-quarter of the total number. In recent years, tobacco and tobacco products have attained a more important position among Puerto Rican export products; the 1945 tobacco crop amounted to 44 million pounds, the largest since the 1920's, when the tobacco industry began to decline.

Commercial production of tropical fruits—particularly pine-apple and citrus fruit—was begun a few years before the Second World War. Puerto Rican producers, however, were not able to compete with producers in Florida and California in supplying fresh fruits for the United States market and therefore turned their attention to tinned fruits.

Although about 40 per cent of the harvested land is in food crops for local consumption, the island imports a large part of its food supply.

2. *Industry*

In industry as in agriculture, sugar is the most important commodity. Sugar processing is the principal industry, and the manufacture of rum from molasses ranks second. Sugar and molasses accounted for almost one-half of Puerto Rico's entire exports in 1946. Other processed agricultural products include tobacco, coffee, fruits and vegetables.

According to the 1939 census of manufactures, the gross value of industrial products amounted to $111 million.[5] An annual average of 23,484 wage earners were employed in 798 manufacturing establishments with an annual payroll of $9 million.

Needlework is the most important industry not associated with agricultural products. The needlework industry ranks second only to sugar in the number employed; an average of 50,000 persons are engaged in the industry during its seasonal peak. In 1921 needlework represented 2.8 per cent of the total value of exports; the proportion was increased to 14 per cent in 1931 and to 22 per cent in 1947. Other industries in Puerto Rico include the manufacture of men's clothing, straw hats and shell buttons and the preparation of goods for local sale, such as bakery products, beverages, light metal-work products and ice.

---

[4] Office of Information for Puerto Rico, *Puerto Rico Handbook, 1947*, page 25.

[5] The monetary unit of Puerto Rico is the United States dollar.

Puerto Rico's mineral resources have never been thoroughly explored. The island is not known to possess necessary mineral resources of commercial value for heavy industry.

3. *Man-power*

The population in 1940 was almost 1.9 million, nearly double that of 1899. The 1947 population was officially estimated at over 2.1 million, a net annual increase of 35,000 since 1940.

The unemployment figures of the island furnish an index of its economic difficulties. During the summer of 1934, unemployment reached the all-time high of 350,000; it was estimated that this situation affected some 75 per cent of the population, directly or indirectly.[6] The total labour force was estimated at 700,000 in April 1947 by the Puerto Rican Bureau of Labor Statistics; unemployment generally averaged about 10 per cent of the total. Agriculture and the agricultural industries, such as sugar and its products, offer only seasonal employment, and under-employment is general. A major purpose of the industrialization programme is to aid in solving the problem of unemployment.

B. RECENT HISTORY

Economic activity in Puerto Rico increased during the thirty years following 1900, when the United States extended tariff protection to its territories. Production of commodities which enjoyed a free American market proved highly profitable. Private capital from the United States, together with available funds on the island, developed the sugar, tobacco and fruit industries. The major concentration during this period was on sugar-cane production; coffee output had already reached high levels under the Spanish regime. A flourishing needlecraft industry was developed by private capital. Unemployment on the island during this period was low compared with later years, and increased Government revenue from the prosperous sugar industry permitted increased public services.

After 1934, production failed to keep pace with the increasing population. The tobacco industry experienced sharp reverses, caused by crop and production difficulties and loss of foreign markets. The hurricanes of 1928 and 1932 inflicted heavy damage on the coffee plantations, which were never completely restored. Sugar quota restrictions of the United States in 1934 halted the expansion of the sugar industry. These factors resulted in greater unemployment and lower incomes for the increased population.

---

[6] Erich W. Zimmermann, *Staff Report to the Interdepartmental Committee on Puerto Rico* (Washington, D. C., September 1940), page 51.

Puerto Rico suffered severe distress from the early 1930's to the war period. The island received United States aid and subsidies, consisting of loans and emergency expenditures for unemployment and work relief, as well as grants for agricultural security, soil conservation, food relief, public health and similar purposes.

1. *Relief and rehabilitation measures*

The emergency aid, however, did not remedy basic deficiencies in the economy. Recognition of this fact led to the appointment in 1935 of a commission to draw plans for the economic rehabilitation of Puerto Rico. The Puerto Rico Reconstruction Administration (PRRA), an agency of the United States Government, was created in 1935 to meet the island's special needs. It embarked on a twofold programme: immediate measures for the unemployed and development of a permanent plan for economic reconstruction to revive the existing economy and to provide new sources of employment and income. By 1941, the Reconstruction Administration had spent approximately $72 million in providing work relief and in feeding the unemployed.[7] The Reconstruction Administration prepared some studies and plans for the economic reconstruction of the island, but discontinuance of appropriations curtailed its activities in 1939; few concrete projects resulted from its efforts. Most of the studies and plans, however, were later revived by the Puerto Rico Planning, Urbanizing and Zoning Board.

The Works Progress Administration was established in Puerto Rico in September 1939 to carry out work relief projects similar to those formerly undertaken by the Reconstruction Administration.

In 1940, 15 per cent of the total labour force, or nearly 90,000 persons, were either unemployed or working on relief projects.[8]

2. *Effect of the war*

The entrance of the United States into the war further aggravated the economic predicament of Puerto Rico, particularly because of difficulties arising from the shipping situation. The war isolated Puerto Rico, and its industrial activities had to be curtailed because of the difficulty of importing raw materials and of exporting island products.

During the first years of the war, the Government of Puerto Rico inaugurated emergency programmes that were tied to emergency programmes in the United States. While the primary purpose of the programmes was to provide relief, the measures later led to projects for economic development. The war emergency programme of 1942, for example, was an extensive programme for direct and work relief which included not only improvements in streets, roads and water supplies, but also forestry and soil conservation projects.

---

[7] Olive Holmes, *Puerto Rico: An American Responsibility*, "Foreign Policy Reports", 1 March 1947, page 14.

[8] United States Bureau of the Census, *Sixteenth Census of the United States: 1940, Puerto Rico, Population, Bulletin No. 2.*

United States payments in Puerto Rico included direct expenditures, loans, grants-in-aid and payments under co-operative arrangements. In the five-year period from 1942 to 1946, total United States expenditures were $769.7 million, distributed as follows: $121.6 million in 1942; $147.4 million in 1943; $158.9 million in 1944; $156.8 million in 1945; and $185 million in 1946.[9] In the four-year period from 1940 to 1944, United States agencies made loans to Puerto Rico totalling $49.5 million.[10]

C. GOVERNMENT ACTION

During the early 1940's, the Government of Puerto Rico began to take a more direct part in the development of the island's economy. Before this time, attempts had been made to solve unemployment and underemployment by direct relief, work relief, loans, encouragement of the tourist trade and attempts to attract capital for investment in new industries. Except for the utilization of water resources in 1915 and the cement plant established by the Reconstruction Administration in 1939, the Government itself had not taken the lead in developing the industrial potential of the island. Local capital was not invested in new ventures largely because of the inadequacy of local resources and the lack of experience in production techniques. There was also a fear of outside competition—particularly of the unloading by continental producers of large quantities of goods at low prices.

After 1940 the Government embarked on a broad programme of economic development which emphasized the encouragement of industrial enterprises in order to increase employment opportunities. The programme was financed largely by funds derived from United States internal revenue taxes on Puerto Rican rum, which are refunded to the Puerto Rican Government. Such taxes increased greatly as a result of war shortages in the United States, which stimulated Puerto Rican rum exports.

Long-range systematic guidance of the island's economy was undertaken by the Government with the creation of the Planning, Urbanizing and Zoning Board. This agency was responsible for the preparation of a well-rounded planning programme, to include housing, zoning and subdivision control, as well as capital improvements.

---

[9] Caribbean Commission, United States Section, *Industrial Development of Puerto Rico and the Virgin Islands of the United States* (Trinidad, July 1948), pages 192 and 193.

[10] Office of Government of Puerto Rico, *Basic Statistics on Puerto Rico*, compiled and edited by S. L. Descartes (Washington, D. C., 1946), page 102.

1. *Development activities*

The first step in the development programme was the enforcement of the 500-acre law of 1900—a statute restricting corporations engaged in agriculture to ownership of 500 acres—which was part of the organic act of Puerto Rico but was not enforced. By 1935, one-fifth of the land in Puerto Rico was under the control of the sugar mills and allied interests. From 1936 to the end of the fiscal year 1947,[11] eighteen sugar corporations were sued because of excessive land holdings. To aid in enforcing the statute, a Land Authority was created by Puerto Rican law in 1941, to continue the improvement in land tenure practices begun by United States federal agencies. Large landholdings were divided into small farms or were acquired for operation by the Land Authority for the benefit of landless farm workers, who received bonuses or shares in the profits. In June 1947, the Land Authority controlled about 10 per cent of the sugar-cane lands.

Because additional land for the expansion of agriculture was limited, and sugar-cane, the principal agricultural product, was restricted to a fixed output, it became evident that agricultural improvement depended on the education of farmers, seed selection and better land use, rather than further investment.

2. *Agricultural assistance*

The agricultural development programme was implemented in 1945 by the creation of the Agricultural Development Company, in order to make possible large-scale government-financed agricultural ventures. Special funds were appropriated by the Legislature for soil conservation; protection of watersheds; and the construction of milling centres and of a veterinary laboratory and a fumigating plant. The eradication of cattle-tick, the work of the Coffee Relief Commission, the inspection of co-operatives, the establishment of the tobacco production quota system and an inventory of forest resources were also provided in these special appropriations.

3. *Aid to industry*

Because of the limited possibilities for agricultural expansion, the Government emphasized the importance of industrial production in providing new channels of employment for the growing population.

The Government attempted to build up the economy of the island by encouraging private enterprise. Incentives in the form of favourable conditions for investment were offered to potential investors, both domestic and foreign. A programme of aid to industry was initiated by the government-owned Industrial Development Company.

---

[11] Throughout this chapter, reference to the fiscal year indicates the year ending 30 June.

Under the programme, Government agencies were to assist new industries by providing sites and technical advice regarding local conditions. Appropriations of nearly $1.5 million were made in the fiscal year 1947 for the construction of factory buildings to be leased at low rentals to private enterprises. As further encouragement to industrial expansion, the Legislature of Puerto Rico approved Act 346 of 12 May 1947, which exempted new industries from income, property and municipal taxes and from excises on machinery and raw materials for a period of years.

Research, study and training were to be intensified. The largest vocational training centre in the Caribbean was established with financial aid from the United States. Nearly $2 million was appropriated for the Industrial Arts School of the University of Puerto Rico, where it was planned to train 7,000 students for new industries fostered by the Industrial Development Company.

The Development Bank was organized in 1942 to lend Government funds, both to private interests for new industries and for expansion of existing plants, and to government-owned development companies. The bank was reorganized in 1948 to furnish more extensive and more effective credit facilities.

In addition to encouraging private investment, the Government, under the industrial programme, entered into industrial and agricultural ventures when private capital was slow to assume the risk involved in new industrial undertakings. When, because of high risks or insufficiently attractive profit opportunities, private capital was unwilling or unable to invest, the Government, through the Industrial Development Company and the Agricultural Development Company, undertook industrial and agricultural projects which were deemed socially desirable.

This policy was clearly outlined in the first annual report of the Industrial Development Company, dated 31 December 1943, which stated that "Since its inception, it has been the policy of the Puerto Rico Industrial Development Company to make available to private investors all the industrial projects favourably reported upon by its consultants and its staff. In those cases in which the investment for the particular industry is beyond the scope of any particular investment group, the Development Company has carried the major burden of supplying the capital, and local investors have participated in the enterprise".

This concept was further emphasized by the Governor of Puerto Rico when he declared that[12] "In industrialization we ought to continue along the present lines of development whose fruits are already being seen. We

---

[12] *Message to the First Session of the Seventeenth Legislature, February 23, 1949,* pages 22 and 23.

shall continue giving ample opportunities to new industries and shall prefer that it be private initiative which establishes and controls them, as long as they live up to the civic responsibilities which should accompany every action which affects the lives of many".

The Industrial Development Company was created with Government funds to establish new industries on its own initiative and to assist private industrial enterprises. The company was the chief agency of the Government for this general purpose; in turn, it created subsidiaries for participation by private capital in specific ventures. In December 1945, however, the share of private capital in the subsidiaries of the Industrial Development Company amounted to only 2.3 per cent of the company's total capitalization. Private ownership was confined to stocks of the Puerto Rico Glass Corporation. Private investors, mostly Puerto Rican, held about 40 per cent of the stock of the Glass Corporation; the Industrial Development Company controlled the remainder.

Five new manufacturing enterprises—both highly mechanized and semi-mechanized—resulted from the Government's industrialization programme, and additional enterprises were planned. The Industrial Development Company received a modern cement plant from the Reconstruction Administration and later established a glass factory, a shoe and leather factory, a heavy ceramics plant and textile plants. These subsidiaries were made available for purchase by private investors who gave evidence of competency, on condition that the industry remain in operation in Puerto Rico. Seventeen new enterprises, expected to employ almost 35,000 workers, were established in Puerto Rico by the Industrial Development Company since the initiation in 1945 of the programme to encourage private capital. These enterprises included only concerns for which the Industrial Development Company provided factories—in large part, at Government expense.

4. *Other projects*

The over-all programme of the Puerto Rican Government included other important features. As industrialization programmes proceeded, the Water Resources Authority increased supplies of hydro-electric power. The island more than doubled its electric power production between 1941, when 192 million kilowatt-hours were produced, and 1948, when the annual rate of output was 458 million kilowatt-hours. Plant development under way was expected to increase power production by over 300 million additional kilowatt-hours during a few years. Housing projects expected to cost $26 million, and to require the services of 10,000 workers, were under construction in mid-1948. Since the start of the programme, the Government has spent over $12 million annually, or one-fourth of its budget, on health and over $30 million annually on education. It has appropriated more than $40 million to provide pure water and sewage disposal facilities throughout the island.

II. Planning Board

The Puerto Rico Planning, Urbanizing and Zoning Board was created by Act 213 of the Puerto Rican Legislature on 12 May 1942; it began to function in August of that year. This Planning Board consisted of three members appointed by the Governor with the advice and consent of the Puerto Rican Senate.

A. Organization and Functions

The creation of the Planning Board to co-ordinate the activities of new public enterprises and to regulate the use of land was a far-reaching innovation. A regulatory agency for the island as a whole, the Planning Board directed private real estate development by means of urban zoning and guided public development by means of budgetary recommendations. Public projects were fitted into flexible six-year master plans which met the requirements of particular enterprises, in accordance with the public interest and the present and estimated future situation of insular revenues.

The functions of the Planning Board may be divided into planning and regulatory responsibilities. Planning functions included study and preparation of annual master plans for the development of Puerto Rico; these covered agricultural and manufacturing production and distribution, urban and island-wide social services and facilities, urban streets and transportation, rural roads, urban land-use and zoning. The Planning Board was also responsible for the annual preparation of six-year financial programmes, which were subject to the approval of the Governor and the Legislature.

Regulatory functions of the Planning Board included review of projects submitted by executive departments, executive agencies and municipalities; these covered capital improvements and the purchase of land. The Board also prepared and issued zoning and subdivision regulations. These regulatory functions were necessary to carry out the recommendations contained in the master plans.

The work of the Planning Board was organized into divisions: Engineering, Urban Development, Industries and Services, Finance and Administration. In addition, there was the Office of the Secretary and Legal Adviser and the Office of the Chief Planner. Three projects for which special appropriations were voted by the Legislature formed an integral part of the Planning Board's work: an urban land-use project, an official map and a map of territorial boundaries of Puerto Rican municipalities. The Planning Board engaged consultants to prepare special studies for the master plan and to perform other technical work.

The powers and duties of the Planning Board included the following functions:

(*a*) Master plans. The Planning Board prepared master plans to serve as guides to the sound physical and economic development of the island as a whole and of the individual municipalities. The master plans also provided criteria by which the value and urgency of specific projects might be judged.

(*b*) Six-year financial programmes. A consolidated financial programme was prepared annually and was submitted to the executive and legislative branches of the Government. When approved, it became the final working programme for those parts of the master plans that deal with the expenditure of public funds.

(*c*) Public improvements. The Planning Board reviewed all projects for public improvements and governmental purchases of land which were proposed by the executive departments and agencies of the Government and the municipalities, in the light of the master plans and the financial programme.

(*d*) Urban development. The Planning Board attempted to promote efficient and co-ordinated urban development in conformity with the master plans, by means of land subdivision, zoning regulation, slum clearance, street planning, improved traffic facilities and the general guidance of public improvements.

(*e*) Social and economic studies. The Planning Board initiated studies to be used for the formulation, co-ordination and review of plans to develop the resources of the island.

After four years of intensive study, the Planning Board adopted master plans for hospitals for each of the general districts of Puerto Rico and for major thoroughfares in the metropolitan areas of San Juan, as well as an island-wide plan for roads and airports.

The Planning Board held public hearings before issuing regulations, master plans, official maps and six-year financial programmes. Other Government agencies and the general public were thus informed of the activities of the Planning Board and were given opportunity to participate in the programming.

The Planning Act of Puerto Rico provided that decisions of the Planning Board regarding public improvements might be appealed within twenty days to the Executive Council, *i.e.*, the Governor's Cabinet. The latter was given authority to amend, alter or revoke the Planning Board's decisions. The Governor was empowered to amend any part of the six-year financial programme. The Legislature may also revise the approved or amended financial programme when it is submitted as a recommendation. Regulations adopted by the Planning Board and made public by the Governor are also sent to the Legislature for approval.

Official maps showing proposed new streets and widening of streets must be submitted for approval to the Executive Council of Puerto Rico and to the Legislature, which may modify them.

The Office of the Permit Official, under the jurisdiction of the Puerto Rican Department of Interior, was placed in charge of enforcing zoning regulations according to official maps adopted by the Planning Board. The Permit Official was authorized to refuse applications for construction permits that did not accord with the official maps or with the zoning regulations. However, decisions of the Permit Official may be appealed on questions of law; an appeal may be taken as far as the Supreme Court of Puerto Rico.

B. SIX-YEAR PROGRAMMES

Section 13 of the Planning Act provided that the Planning Board should annually prepare a six-year financial programme, beginning with one for the period from 1 July 1944 to 30 June 1950. The programme was to contain a statement of the proposed and pending capital improvements and administrative expenses of the Government, including those of its instrumentalities and corporations, and ways and means of financing the programme, with due regard to the public interest.[18]

The six-year programmes combined the Planning Board's own master plans with the proposals submitted by insular departments and agencies, to form detailed programmes for capital improvements. They also included recommendations for operating expenditures over a period of six years, on the basis of existing Government activities and programmes for capital improvement. This detailed governmental financial programming presented a virtual balance-sheet, broader than the statement of current income and expenditures submitted annually by the Puerto Rican Bureau of Budget, and complementary to it.

During the relatively brief period in which long-range financial programming has been in operation in Puerto Rico, numerous substantial changes in the contemplated programmes have been made as a result of consideration and action by various responsible officials and because of changing conditions. A major change was the allotment of a large portion of the funds accumulated during the war period to various public enterprises for promoting the country's economic welfare.

The four six-year financial programmes have followed a general pattern. The programmes contained estimates of income from Puerto Rican Government sources for the current fiscal year and for the succeeding years, the status of the public debt and the estimated debt service during the six-year period, the proposed programme of current expenditures, the proposed contributions from the general fund to public enterprises, the total proposed capital improvement programme of the Government, summaries of the programme of expenditure and a general recapitulation of resources and expenditures.

---

[18] Act 213 of 1942.

1. *Revenues*

The Planning Board's report introducing the third financial programme[14] stated that the greater part of the economic programme was dependent on the prosperity and stability of the Puerto Rican rum industry. The income from the internal revenue tax on rum collected by the Government of the United States and refunded to the Government of Puerto Rico has provided the capital necessary for a broad programme of public improvements. Before the war, annual revenue of the Government from the rum industry averaged about $12 million, but during and since the war peak annual revenue amounted to $60 million. The fourth six-year financial programme proposed a study of the possibility of stabilizing the rum industry, to yield a constant annual revenue for the Government of about $20 million. The Planning Board, however, considered it essential that Puerto Rico develop a stable source of income other than the tax on rum.

The income estimate in the 1948 budget included revenue of more than $30 million from income taxes, more than $38 million from excise taxes and nearly $19 million from the United States internal revenue tax. The present real estate tax has been studied and a law drafted to make the complete reassessment of real property possible.

2. *Appropriations*

The fifth six-year financial programme brought total planning to a period of nine years, beginning with the fiscal year 1946 and extending through 1954. Appropriations authorized in the first three years and those recommended for the remaining six years totalled $219 million for capital improvements, an average annual outlay of, roughly, $24 million. More than half the recommended appropriations were for Government services, such as water supply systems, roads, housing, health, public welfare, education, penal institutions, parks and recreation.[15] Total outlays and allocations followed very closely the Planning Board's first long-range financial programme which was presented to the Legislature in 1945.

An analysis of expenditures for capital improvements during the nine-year period, for tax-supported projects and for contributions to projects which are wholly or partly self-supporting, is given below.

The housing item in the table includes the *agregado*[16] programme, a rural housing programme of the Land Authority. Expenditures for land tenure cover the Land Authority's purchase and operation of farms under the 500-acre law which was intended to reform the land tenure system of Puerto Rico. The public utility item includes allocations to communications and transportation authorities in addition to general supplies and miscellaneous services. Appropriations for direct economic development include allocations to the Development Bank, the Industrial Development Company, the Agricultural Development Company and irrigation projects.

---

[14] Puerto Rico Planning, Urbanizing and Zoning Board, *Third Six-Year Financial Program for the Fiscal Years 1946-47 to 1951-52* (Santurce, 1946).

[15] *Ibid., Fifth Six-Year Financial Program for the Years 1948-49 to 1953-54* (Santurce, February 1948), page x.

[16] *Agregado,* a name given to the landless peasant or landless farm worker.

ESTIMATED CAPITAL IMPROVEMENT PROGRAMME, 1946-1954
(In thousands of United States dollars)

Item	*Nine-year total*	*Annual average*	*Per cent of total programme*
Government services:			
Water supply and sewerage systems	15,802	1,756	7.2
Highways	18,597	2,066	8.5
Housing[a]	21,330	2,370	9.7
Health and welfare	18,114	2,013	8.3
Education	24,043	2,671	11.0
Protective and penal institutions	2,476	275	1.1
Parks and recreation	4,309	479	1.9
Other services	11,037	1,226	5.0
Land tenure[a]	20,500	2,278	9.4
Public utilities[a]	19,367	2,152	8.9
Direct economic development[a]	63,172	7,019	29.0
TOTAL	218,747	24,305	100.0

Source: Puerto Rico, Planning, Urbanizing and Zoning Board, *Fifth Six-Year Financial Program for the Years 1948-49 to 1953-54* (Santurce, February 1948), page xi. Data are for fiscal years ended 30 June.

[a] Including the following initial appropriations for the fiscal year ended 30 June 1945 which were, in effect, integral parts of the programme: Housing, $3.76 million; Land Authority, $1.5 million; Communications Authority, $170,000; and Development Bank, $5 million.

Total capital outlays for tax-supported projects represented slightly more than half the total programme; direct economic development represented almost three-tenths; and the land tenure programme and public utilities divided the remaining fifth about equally between them.

The functions covered by the appropriations for direct economic development were basic to Puerto Rico's policy of economic development. The capital outlays were allocated to the operation and maintenance of tax-supported projects in current and future programmes. It was anticipated, however, that most of the agencies for economic development would be able to finance themselves in the future; they were expected to become good credit risks and to provide for their own further expansion by issuing securities for purchase by private capital.

Government appropriations during the eight fiscal years from 1942 to 1949 for the public enterprises which were intended to foster the economic development of Puerto Rico, and the proposed programme for 1949 to 1954, inclusive, are shown below.

APPROPRIATIONS AND PROPOSED GOVERNMENT CONTRIBUTIONS TO PUBLIC ENTERPRISES, 1942-1954[a]

(In millions of United States dollars)

Agency	*Appropriations 1942-1949*	*Fifth six-year programme 1949-1954*
Aqueduct and Sewer Service	12.8	5.0
Housing Authority	18.0	3.6
Industrial Development Company	22.4	7.1
Development Bank	20.5	—
Agricultural Development Company	12.2	—
Coffee Insurance Corporation	5.0	—
Water Resources Authority	2.7	4.1
Isabela Irrigation Service	1.5	—
Land Authority	29.5	1.0
Transportation Authority	8.4	4.0
Communications Authority	2.1	1.7
General Supplies Administration	8.5	—
TOTAL	143.6	26.5

Source: Puerto Rico Planning, Urbanizing and Zoning Board, *Fifth Six-Year Financial Program for the Years 1948-49 to 1953-54* (Santurce, February 1948), pages 15 to 18; United Nations document E/1562, 16 December 1949, page 281.

— Nil.

[a] Fiscal years ended 30 June.

III. Economic development

While emphasizing its policy of industrialization, the Government of Puerto Rico also attempted to improve and develop agricultural production and to reform land tenure and land-use practices.

A. AGRARIAN PROGRAMMES

The pressure of population upon the land resources of Puerto Rico is severe; the average population density is 620 persons per square mile and landownership is highly concentrated. The per capita area is about one acre of land and about 0.39 of an acre of harvested cropland. Of the total of 1,886,000 *cuerdas*[17] in farms in 1940, 30.8 per cent, or about 581,000 *cuerdas,* consisted of holdings of 500 *cuerdas* and over; such holdings represented about 0.6 per cent of all farms. Farms of 100 to 500 *cuerdas* accounted for 28.4 per cent of all land in farms and were 5 per cent of the total number. In contrast, 73.2 per cent of the farms represented 15.7 per cent of all land in farms.[18] In 1940 there were 43,000 farm owners, compared with 229,000 farm employees; the income of the latter was generally below the level considered necessary to provide an adequate family standard of living in Puerto Rico.

---

[17] A Puerto Rican *cuerda* equals 0.97 acres, or about 0.393 hectares.

[18] United States Bureau of the Census, *Sixteenth Census of the United States, 1940, Puerto Rico, Agriculture,* pages 9 and 10.

1. *Homestead Commission*

Legislation for land reform dates from 1921, when an independent Homestead Commission was created for the dual purpose of providing urban housing and of establishing small farms for rural labourers. The Commission was later reorganized as the Homestead Division of the Puerto Rican Department of Labor. By a legislative act of 1945, the activities of the Homestead Division were assigned to the Land Authority.

Between 1921 and 1935, the Homestead Commission or Division was the only Puerto Rican agency for improving the land tenure situation. During these years, it distributed an annual average of 80 small farm plots. By 1946, a total of 2,074 small farms, comprising 23,750 acres and averaging 10 *cuerdas*, or 9.7 acres per farm, were established.[19] The agency also built 1,146 houses for small farmers and landless agricultural workers.

2. *Reconstruction Administration*

Between 1935, when the Puerto Rico Reconstruction Administration was created by the United States Government, and 1940, when activities were curtailed by lack of funds, the Reconstruction Administration made garden homes on one-acre plots available to a large number of rural and urban workers. The Reconstruction Administration established subsistence farms for more than 8,000 farmers, as well as a few small-family farms, of 4 to 20 acres, 19 large-scale units and 12 co-operative farms. In June 1944 fewer than 10,000 families, or about one-fifth of all landless families, had been established on Reconstruction Administration plots; about three-quarters of these were settled in the coffee, tobacco and fruit-growing regions.[20] The programme involved slightly over 27,000 acres.

3. *Farm Security Administration*

Improvement in land tenure on a restricted basis continued to be an important aspect of the farm ownership and rehabilitation programmes of the United States Farm Security Administration (FSA), which began operations in Puerto Rico in 1938. From 1938 to 1945, the Farm Security Administration purchased 21,743 *cuerdas* of land and established 590 family-sized farms.[21] Two major phases of the programme of the Administration were farm ownership loans for the purchase of family-type farms or the enlargement of uneconomic units into family-type farms, and rural rehabilitation loans to farmers with low incomes who were unable to secure necessary credit on suitable terms from other sources. These loans were supplemented by practical guidance and supervision. By 1946, when the Farm Security Administration was abolished, a total of 20,000 low-income farm families in Puerto Rico had received aid. The services of the Farm Security Administration were absorbed by Puerto Rican agencies.

---

[19] Marshall Harris, "Tenure Reform in Puerto Rico", United States Bureau of Agricultural Economics, *Land Policy Review*, Spring 1946, page 23.

[20] The percentages are based on 48,594 families without farms, as reported in the 1940 United States census.

[21] *Puerto Rico Handbook, 1947*, page 26; *Forty-Seventh Annual Report of the Governor of Puerto Rico for the Fiscal Year 1946-47* (San Juan, 1948), page 142.

The programmes of the land agencies resulted in the resettlement of nearly 13,000 families, or more than one-fourth of the landless farm families in 1940, on a total of 72,500 *cuerdas.*

4. *Land Authority*

The programme of the Land Authority was the first large-scale programme to be financed and administered by the Puerto Rican Government. It benefited from earlier experience with reform of land tenure and was considered a significant programme in its possibilities for rural resettlement in Puerto Rico, particularly with respect to the *agregado.* The 1900 law limiting land holdings of corporations to 500 acres was implemented in 1941, when the Government enacted Act 26 of the land law. The law created a board, designated as the Land Authority of Puerto Rico, in the Puerto Rican Department of Agriculture.

The Land Authority was given four major responsibilities: to end corporative *latifundia* (large landed estates) in Puerto Rico; to prevent their reappearance in the future; to facilitate the utilization of land in the best public interest by efficient and economic planning; and to provide the means for *agregados* and slum dwellers to acquire parcels of land on which to build their homes.

The Land Authority was empowered to compel corporations to dispose of land holdings in excess of 500 acres. It might buy such land, provided it offered a price equal to that of the highest bidder. Ample funds were provided for the orderly acquisition of all land subject to the law. The land thus acquired might be used for developing owner-operated family farms, establishing subsistence plots for labourers or organizing "proportional-profit", or profit-sharing, farms.

Between 1941 and mid-1948, the Land Authority acquired 111,221 *cuerdas,* or about 108,000 acres of land; approximately one-half has been used for *agregado* plots and the other half for proportional-profit farms. A relatively small amount of land has been devoted to family-sized farms.[22]

Proportional-profit farms. The profit-sharing plan was an important phase of the Land Authority's programme for improving the land tenure system. It was designed to overcome possible inefficiencies that might result from the subdivision of large estates into small and medium-sized farms.

---

[22] *Puerto Rico Handbook, 1947,* pages 26 and 27.

The profit-sharing plan attempted to combine the most efficient production possible under large-scale corporate operation with the best possible land use in the public interest. To this end, the Land Authority utilized technically qualified managers and a labour force with a direct interest in the profits. Proportional-profit farms might be as large as 500 acres, or even larger, if it appeared desirable for greater efficiency and better use of land.

The farms were leased to qualified managers under conditions approved by the Land Authority. The manager's functions were similar to those in a corporate enterprise. He received a part of the profit for his services—usually 5 to 15 per cent of the annual net profit. The remainder of the net profit was divided among the farm labourers in proportion to the number of days worked and the wages received. The Land Authority supplied all the land and operating capital and supervised the fulfilment of the contract.

The first profit distribution took place on 15 October 1944, when more than $5,700 was apportioned among farm labourers at Walcott farm, a profit-sharing farm in Arecibo. These profits represented additional earnings of 45 cents for every dollar of wages received by the workers. In the crop year 1945/46, 14,500 labourers on proportional-profit farms received a bonus.[23] In 1946 and 1947, a bonus was distributed to workers in two sugar mills under the Land Authority, at the rate of 10 cents additional per dollar of wages earned.[24] At the close of the fiscal year 1948, net profits obtained from the two mills, the Central Cambalache, Incorporated, and Plazuela Sugar Company, Incorporated, were $314,033 and $126,631, respectively, again enabling them to distribute to labour a bonus of 10 cents for each dollar of wages paid. Thirty-seven proportional-profit farms were successfully operated during 1948; sugarcane production by these farms reached 1.08 million short tons and yielded 177,200 tons of sugar, or more than 11 per cent of the entire sugar production of the island.

The manner of computing net income on proportional-profit farms is prescribed by the land law. The manager-lessee is required to cede three *cuerdas* of land to each labourer who lives on the farm or is employed on it. Less fertile or less level sections of expropriated corporate lands may be used for the establishment of rural communities whose residents will thus be enabled to work on adjoining farms.

---

[23] *Puerto Rico Handbook, 1947,* page 27.

[24] According to information transmitted to the Secretary-General of the United Nations, the average straight-time wage in Puerto Rico in June 1947 was 44 cents an hour for workers in manufacturing industries; sugar-mill employées averaged between 52 and 59 cents an hour.

Family farms. According to the law, family farms may vary from 5 to 25 *cuerdas.* To qualify for farms, applicants must be landless, or must own insufficient land to maintain their families, and must have five years of farming experience. The farmer is not given title in fee simple but obtains the use of the land and the products of the farm for life—a usufruct—for an annual payment large enough to repay the principal in 40 years, with interest at 3 per cent.[25] Aside from the stipulation that the farmer who holds the usufruct must observe accepted soil conservation practices, he may operate his farm as he wishes. In case of cancellation or termination of the contract, he may remove improvements and may harvest growing crops. In case of his death, his heirs either receive the amount paid on the principal or continue the usufruct.

The Land Authority has not planned the extensive establishment of family farms. On 30 June 1948, there were 210 family-sized farms, averaging 13.36 *cuerdas,* and it was planned to complete the establishment of 240 new individual farms by 1949.

Subsistence plots. Small garden-home plots were supplied to rural squatters and urban slum dwellers who had previously built small shacks on land they did not own, and whose sole source of livelihood was in wages for labour. The tenure of these labourers was precarious since they might be dispossessed, at the will of the owner, from land on which they had built homes.

The Land Authority undertook to provide free quarter-acre parcels of land for a total of 48,594 *agregado* families in 1940; each family was permitted to buy an additional three-quarters of an acre at cost. In 1942, two years after the adoption of the act, approximately 2,850 families had been settled on such plots, but titles to the land were not transferred. The Land Authority sponsored an amendment to the act to grant *agregado* families lifetime free tenancy, without title to the land.

The law required that settlements for landless families be located near roads, be no more than five kilometres apart and consist of not fewer than 25, nor more than 500, parcels.

The Land Authority was authorized to make individual loans, to a maximum of $150, to *agregado* families for the purchase of construction materials, but this provision of the law was not placed in operation. The plots were rent-free. The Land Authority expected to provide *agregado* communities with sanitary facilities at a later date, but did not contemplate management of the communities. Streets to be laid out were to be under the control of the Puerto Rican Department of Interior.

Considerable progress was made in providing labourers with secure tenure for small plots, sufficient for house, garden and subsistence livestock, at a minimum price. On 30 June 1947, there were 135 settlements with sufficient subsistence plots, ranging in size from one-fourth of a

---

[25] Marshall Harris, *op. cit.,* page 24.

cuerda to 3 *cuerdas,* to provide for 16,642 families, or nearly one-third of the total number of landless peasant families in 1940. Since the average *agregado* family consists of 5.1 members, it has been estimated that the benefits of the plan have been extended to almost 85,000 persons.[26] By 30 June 1947, 13,393 homes had been built in the 135 settlements—an indication that over three-fourths of the *agregados* who had been granted land built their own homes. By the end of the fiscal year 1948 the *agregado* resettlement programme had been extended to 74 of the 77 municipalities; the number of rural communities had been increased to 143. Lots had been assigned to 18,088 labourers' families and 14,906 homes had been built.[27]

This programme of resettlement of *agregados* was closely related to the profit-sharing farm project since the labourers were employed for the most part on such farms.

A preliminary master plan for the resettlement of small farmers, prepared by the Planning Board in 1948, recommended the establishment of 134 new rural communities, the enlargement of 23 existing ones and the extension of 26 urban centres.

A legislative appropriation of $150,000 for the acquisition of a swampy area of 6,000 *cuerdas* resulted in the reclamation and cultivation of this area.

Until the end of the fiscal year 1947, financing of the Land Authority's programmes was accomplished by means of income derived from its operations and from appropriations amounting to $26.5 million authorized by the Legislature of Puerto Rico. Rents charged to proportional-profit farms were the Land Authority's main source of income.

As a result of operations in 1947, the main office of the Land Authority had a net income of $1.5 million, of which $368,000 was distributed among farm labourers.

B. AGRICULTURAL PROGRAMMES

The agencies of the Department of Agriculture and Commerce, the University of Puerto Rico and the Agricultural Development Company have been the principal instruments in developing Puerto Rican agriculture.

1. *Department of Agriculture and Commerce*

The many phases of the work of the Puerto Rican Department of Agriculture and Commerce are performed by its various divisions: Agricultural Services, Animal Husbandry, Forestry, Fisheries and Wild-life and Regulatory and Accessory Services. Through these divisions, the Department has distributed seeds to needy farmers, operated milking centres and given instruction and assistance in soil and moisture conservation, erosion control and land utilization. The Department has also developed tree nurseries, protected watersheds, constructed forest roads and trails and established fish-ponds. It has introduced and bred birds which prey on insects and eradicated birds and animals which prey on game.

---

[26] Puerto Rico, *Forty-Seventh Annual Report of the Governor for the Fiscal Year 1946-47* (San Juan, 1948), page 143.

[27] *Summary and Analysis of Information Transmitted* [by the United States] *under Article 73e of the Charter* [of the United Nations], A/907/Add. 1, (mimeographed) 12 July 1949.

Research and education have been important phases of the programme for agricultural development; a number of institutions have been responsible for research, education in improved techniques and practical application of the results of research.

Division of vocational education. This division of the Puerto Rican Department of Agriculture and Commerce has co-operated with United States agencies to provide vocational education in Puerto Rico. The several fields of vocational education—agriculture, home economics, agricultural trades, marketing and sales—have been under Puerto Rican supervision and control. In addition to theoretical education, the schools have provided supervised farm programmes by which improved agricultural techniques have been taught on school farms or, in the case of students who have the necessary facilities, in supervised projects on their own farms.

Institute of Tropical Agriculture. The Puerto Rican Government established the Institute of Tropical Agriculture to perform research in botany, plant physiology, cytogenetics and tropical horticulture. In 1945 and 1946, the activities of the Institute were broadened by additions to personnel and equipment. In its fourth six-year financial programme, however, the Planning Board recommended that the activities of the Institute of Tropical Agriculture be consolidated with those of the University of Puerto Rico.

2. *Experiment station of the United States Department of Agriculture*

The experiment station of the United States Department of Agriculture began operations about 1900, shortly after the United States had acquired the island. It undertook research in fields not covered by other experiment stations on the island—principally in bamboo, vanilla, essential oils and spices.

Experiments with bamboo led to practical industrial results: a fishing-rod factory, utilizing locally grown bamboo, was established near Mayaguez, and two other small enterprises, to make bamboo furniture and miscellaneous bamboo novelties, were also established. The station discontinued its experimental bamboo activities when industrial phases of bamboo production were taken over by the Industrial Development Company.

The station's agronomic research in vanilla included studies of growth and production under varying conditions.

3. *University of Puerto Rico*

The University of Puerto Rico, at Rio Piedras, played an important role in agricultural research and education. In 1947, the College of Agriculture had an average enrolment of nearly 300 students, and the Agricultural Extension Service operated 46 rural offices and three demonstration farms. The University has also established agricultural experiment stations.

These groups worked towards increased soil productivity by the development of high-yield varieties of seed and by improvement in production techniques.

Agricultural experiment station. The agricultural experiment station of the University of Puerto Rico was especially concerned with research in food production and conservation. It established regional seed farms to ensure the rapid distribution of new and improved seed varieties throughout the island. The Puerto Rican Government granted the station an appropriation of $460,000 to establish additional experimental substations and farms for the production of improved seed. The fourth six-year financial programme of the Planning Board, for the fiscal years 1948 to 1953, recommended an additional appropriation of $490,000 for the same purpose.

The station conducted surveys of the economic and social aspects of various agricultural industries, studied farm management and land use in the Lajas Valley, prepared production-cost analyses of various food crops and made a socio-economic survey of farms established by the United States Farm Security Administration. The programme for crop improvement included the development of better varieties of sugar-cane and food plants, in terms of yield, nutritive value and disease resistance. The station also made a study of the island's agricultural potential, which indicated the possibility of an 80 per cent increase in agricultural production.

The station planned, with funds that had been appropriated and with additions recommended by the Planning Board, to establish six new regional experimental substations: in the coffee region; in the tobacco region; in a minor-crop region; in the fruit region; in Lajas Valley, to study the cattle industry and to experiment with crops in arid zones; and on the island of Vieques, to study sugar, fruit and minor-crop problems. The agency also planned to establish six seed-farms: five to be attached to the above substations, with the exception of Vieques, and one near the experimental substation at Isabela.

Important accomplishments of the station included the development of chemical tests for the quality and age of rum; breeding of a superior variety of sugar-cane; improvement in the quality and yield of forage grasses by control of nitrogen fertilization; determination of efficient methods of supplying forage to cattle; development of a new variety of cucumber resistant to two serious local diseases; development of high-yield red beans; increase in the production of corn and other field crops in acid soils; and study of a gum-secreting pine-apple disease which seriously hindered the successful processing and tinning of fruit for export.

Agricultural Extension Service. The Agricultural Extension Service of the University of Puerto Rico performed various co-ordinated activities intended to assist families in raising their standards of living, by emphasizing the production of food, both for home consumption and for sale. Vegetables, seeds and plants were distributed free of charge to 23,215 families, who produced 7,000 tons of foods in 1946.[28] The Extension Service taught homesteaders the nutritive value of fruits and aided them in planting orchards; in 1946, it distributed nearly 30,000 fruit trees that had been grown from seed-beds planted during demonstrations of techniques.

The Agricultural Extension Service also attempted to develop rural industries as part of its programme to increase family incomes. The Agricultural Economy Section of the Service organized co-operative associations in both urban and rural areas.

Other activities of the Agricultural Extension Service included co-operation in the island-wide campaign for soil conservation; distribution of seedlings for the reafforestation programme; establishment of plant-breeding centres in five rural communities; instruction, demonstrations and assistance in intensive crop cultivation; and provision of recreational activities for rural families.

About 11,000 farmers availed themselves of the services or visited the nine demonstration farms of the Agricultural Extension Service in 1947.

4. *Agricultural Development Company*

The Puerto Rican Legislature established the Agricultural Development Company on 26 April 1945 to aid in developing agricultural resources and provided it with a capital fund of $10 million. In addition to this appropriation by the Legislature, the Agricultural Development Company received about $2 million in transfers from other Government agencies.

The central office of the company had eight administrative divisions: General Manager, Personnel, Supply, Controller, Treasurer, Engineering, Legal and Public Relations; and six operational divisions: Vieques, Bayamon Farm, Food Products, Fisheries, Markets and Fruit Production.

---

[28] Governor of Puerto Rico, *Forty-Sixth Annual Report, 1946* (San Juan, 1947), page 33.

The company was granted the use of 12,000 acres of Government land on the island of Vieques.

The company was authorized by law to conduct research and experimentation; to establish approved practices for cultivating, grading, labelling, marketing, advertising, packing and shipping agricultural products and manufactures of such products; and to operate or own properties or industrial and commercial enterprises relating to agriculture and its by-products. The law also empowered the company to encourage the maximum possible development of agricultural and related resources in Puerto Rico and to form and hold interests in subsidiary corporations and enterprises.

The activities of the company were concentrated on agricultural products and crops that could be raised on the island. The Agricultural Development Company and the Industrial Development Company co-operated to co-ordinate their activities; for example, the Industrial Development Company established a factory for producing tins, which the Agricultural Development Company utilized for tinning fruits and vegetables raised in its experimental fields.

During its first year of operation the company planned an island-wide system of self-supporting markets to sell local produce and basic imported foods. In the fiscal year 1947, the first, or pilot, market-chain was placed in operation in ten districts. The markets regulated the price of food products by establishing fair price levels with which retailers in general had to compete. A pilot plant to use domestic materials in the preparation of candies, jellies, etc., was completed by the company. Construction of a dairy product plant at Bayamon was planned, and the necessary equipment purchased.

Various experimental projects were undertaken by the Agricultural Development Company at Vieques. The objective of one important project was the development of dairy and beef cattle suited to Puerto Rico; more than 200 head of pure-bred stock were imported from the United States for this purpose.

A similar experiment was undertaken with pine-apple. Twelve acres of land, representing a cross-section of Puerto Rican types of soil, were planted to different varieties of pine-apple, with the object of producing a variety suited to Puerto Rico. Crops that showed the most promising results were pine-apple of the "Smooth Cayenne" and "Grain Sorghum" varieties.

The Fisheries Division of the Agricultural Development Company started operations with equipment received from the United States Department of Agriculture. A long-range fishing boat has been in operation since early 1947.

The Agricultural Development Company operated a number of enterprises to improve the efficiency of agriculture and agricultural industry; on 30 June 1947 it employed more than 2,150 persons.

Among the plans of the Agricultural Development Company were proposals for the following activities: construction of a cigar and cigarette factory; construction of market places with the co-operation of municipal governments; processing of fruits, vegetables and other food products; and the economic development of Mona Island.

C. INDUSTRIAL DEVELOPMENT

Although agriculture provides the most important source of employment and wealth in Puerto Rico, land for additional cultivation is limited, and future improvement in production is therefore predicated on education in more efficient land use and methods of production, rather than on additional acreage. The industrialization programmes are expected to provide needed additional employment opportunities. The rate of increase in the population is estimated at about 35,000 yearly; the total labour force rose 16.3 per cent between April 1940 and April 1947. Merely to maintain the ratio of employed—at 85 per cent of the employable population—it was estimated in 1948 that nearly 5,000 new jobs a year for twelve years, or additional employment opportunities for 58,000 persons by 1960, would be required.[29]

As a preliminary to the industrial phase, the Government of Puerto Rico, with the help of the Government of the United States, embarked on plans to improve transportation facilities and power supply and to train the labour force in industrial processes. Trade and industrial education received great impetus from the promulgation of industrialization plans. By the fiscal year 1947, eleven vocational schools were in operation in important cities of the island. A School of Industrial Arts at the University of Puerto Rico, accommodating 3,500 students, was inaugurated in July 1948; three vocational school buildings, with a capacity of 1,000 students each, were under construction. This school was expected to supplement programmes of apprenticeship training developed by the Department of Labor. Such programmes included special on-the-job training for veterans, trade and industrial training classes in eight vocational schools and in the Polytechnic Institute at San German—a private college—courses at pre-college and college levels and extension courses for part-time students at the School of Industrial Arts of the University of Puerto Rico.

Industrial development projects were undertaken by the Government, which instituted an intensive programme to attract new enterprises to Puerto Rico, by means of the Industrial Development Company, the Development Bank and legislation to encourage and assist industrialization.

---

[29] Caribbean Commission, United States section, *Industrial Development of Puerto Rico and the Virgin Islands of the United States* (Trinidad, July 1948), page 155.

The Legislature adopted Act 22 of 1948 to attract investments, particularly of foreign capital, by offering new industries blanket exemption from income, property and municipal taxes, as well as from excise taxes on machinery and raw materials. Under the law, industries established in Puerto Rico after 1 July 1947 were exempt from such taxes. The "tax holiday" was to remain in effect until 30 June 1959, and graduated rates were projected for the subsequent three years. From the passage of the act to the end of October 1948, applications from 131 new companies were received by the Government; 48 were approved, four were denied and the others awaited action.[30]

1. *Industrial Development Company*

Organization and objectives. The Puerto Rico Industrial Development Company was created by an act of 11 May 1942 for the purpose of initiating an industrialization programme for the island. The policy and programmes of the company were directed towards the full use of available natural resources, chiefly by the following means:[31]

(*a*) Encouragement of fully mechanized industries to promote the use of locally available raw materials, with the objective of developing efficient mechanized industries which can meet outside competition in the local market successfully.

(*b*) Establishment of semi-mechanized and handicraft industries to use raw materials available on the island, at least in part. Major considerations in selecting such industries are the probable number of employees and the possibility of creating markets for their products. Markets for these industries were expected to be found outside Puerto Rico, probably in the United States.

(*c*) Development of a number of small industries by furnishing technical advice and assistance to private business enterprises.

In order to realize its objectives, the company was authorized to explore and study the resources of Puerto Rico and to promote their proper utilization by means of industrial, mining and commercial enterprises in co-operative or other forms; to maintain an educational training programme; to operate a laboratory; to make loans for industrial, commercial and agricultural enterprises; and to operate enterprises for developing, manufacturing and distributing products of specific raw materials, either directly or through subsidiaries.

The company was established as a Government corporation, governed by a board of five directors elected by the Executive Council of Puerto Rico, which is composed of departmental heads of the executive branch of the Government. The Board of Directors appointed a general manager and a secretary who were not directors. The Board created other executive positions, including a treasurer, an assistant treasurer and a controller.

---

[30] Information furnished by the Government of Puerto Rico.

[31] Puerto Rican Legislative Act 188 creating the Puerto Rico Development Company, later called the Puerto Rico Industrial Development Company.

The company was empowered to organize subsidiary corporations as required. The relationship between the company and its subsidiaries was one of decentralized responsibility with co-ordinated control. The management of each subsidiary corporation reported to its own board of directors and transmitted copies of all such reports to the general manager of the company. The general manager, who was responsible to the Board of Directors of the company, kept them informed concerning all matters relating to subsidiaries on which decisions on policy were required. He served as co-ordinator of the decentralized operating units, which were autonomous except for limitations in deciding policy.

The company had five departments: research and development, manual industries and design, finance, traffic and industrial relations.

Finances. The company had authority to issue bonds to the amount of $5 million, and it received an annual appropriation of $500,000. It began operations in 1942 with a glass factory as its major activity. By mid-1947 it had organized five subsidiary corporations—the Glass Corporation, the Cement Corporation, the Pulp and Paper Corporation, the Clay Products Corporation and the Shoe and Leather Corporation. An additional company, the Telares de Puerto Rico, Incorporated, was organized but had not begun operation in June 1948. Textile and handicraft factories were also under construction, and other enterprises were planned.

The consolidated balance-sheet of the company for 30 June 1947 showed total assets of $22,716,976, including cash on hand and in banks, $1,706,311, and tangible fixed assets of $9,178,469; current and accrued

INDUSTRIAL DEVELOPMENT COMPANY: FINANCIAL CONDITION OF SUBSIDIARIES, 30 JUNE 1947

(In thousands of United States dollars)

Item	*Glass Corporation*	*Cement Corporation*	*Pulp and Paper Corporation*	*Clay Products Corporation*	*Shoe and Leather Corporation*
Current assets	751.6	1,292.6	229.6	125.0	167.3
Fixed assets	3,061.5	1,737.1	1,565.9	1,140.6	319.2
Other assets[a]	137.2	46.3	60.7	170.6	51.3
TOTAL	3,950.3	3,076.0	1,856.2	1,436.2	537.9
Current liabilities	768.8	750.4	166.7	28.6	85.2
Capital stock and reserves	3,645.7	2,246.2	1,750.0	1,400.0	501.1
TOTAL	4,414.4	2,996.6	1,916.7	1,428.6	586.3
SURPLUS	464.1[b]	79.4	60.5[b]	7.6	48.4[b]

Source: Puerto Rico Industrial Development Company, *Annual Report for the Year Ending June 30, 1947.* Details do not always add to totals because of rounding.

[a] Including intangible assets, fixed charges, investments, etc.

[b] Deficit.

liabilities, $534,582; surplus, $732,222; net worth, $22,182,394; and a total investment of $9,400,735.[82]

With the exception of the Glass Corporation, the subsidiaries were wholly owned by the Industrial Development Company, the parent holding company. Of the total $3.6 million capital stock outstanding of the Glass Corporation, private capital owned $243,130; the remainder was owned by the Industrial Development Company. Items from the balance sheets of the subsidiary corporations for 30 June 1947 are shown on the previous page.

The Industrial Development Company allocated a total of $4.6 million during the fiscal year 1947 to finance a broad industrialization programme in order to provide essential services for prospective manufacturers and to prepare actively for post-war tourist trade. Of this amount, $3 million was provided by the Puerto Rican Government, and dividends and other sources furnished the remaining $1.6 million.

The fifth six-year financial programme of the Planning Board—for the fiscal years 1949 to 1954—contained an allocation of $9.85 million for

PROJECTS OF INDUSTRIAL DEVELOPMENT COMPANY
ESTIMATED TOTAL COST AND APPROPRIATIONS TO
31 DECEMBER 1947
(In thousands of United States dollars)

Project	*Estimated total cost*	*Appropriations to 31 December 1947*
Buildings for private enterprises	12,689	2,839
Hotel	5,000	5,000
Glass container factory	3,856	3,856
Textile plants	3,500	3,500
Wallboard factory	3,000	1,500[a]
Paper-board factory	2,000	2,000
Flour mill	2,000	2,000
Clay products factory	1,750	1,750
Chinaware factory	725	725
Shoe factory	500	500
Yeast pilot plant	270	270
Industrial laboratory	250[b]	—
Fibre textile and ceramic shops	215	215
Land and housing	87	87
Warehouse, San Juan	77	77
Property, San Jorge project	24	24
Property, Eleanor Roosevelt project	30	30
TOTAL	35,974	24,373

Source: Puerto Rico Planning, Urbanizing and Zoning Board, *Fifth Six-Year Financial Program for the Years 1948-49 to 1953-54* (Santurce, February 1948), page 57.

— Nil.

[a] Representing the participation of the Puerto Rico Industrial Development Company.

[b] In programme for fiscal year 1949.

---

[82] Puerto Rico Industrial Development Company, *Annual Report for the Year Ending June 30, 1947,* page 7.

buildings for private industry, of which $3.13 million was to be expended in the fiscal year 1949 and $3.36 million in 1950.

The estimated total cost of projects of the Industrial Development Company, as given in the Planning Board's programme, and appropriations to 31 December 1947 are shown on the previous page.

Research and guidance. The Research Department of the Industrial Development Company studied the resources of the island in order to determine the practicability of new enterprises and new industries on the basis of available natural resources. On 11 October 1944, the company acquired an industrial laboratory to enlarge its pilot-plant activities. The first studies of the laboratory were devoted to fermentation processes and to the utilization of bagasse as raw material. The studies resulted in the organization of a company subsidiary—the Pulp and Paper Company.

Pilot plants were operated for the purpose of developing manual skills in woodworking, ceramics, basket weaving and needlework. Industrial projects under consideration included the production of food yeast and edible oils and the extraction of citric acid from molasses and sugar-cane juice. The Engineering Construction Division of the Research Department engaged in a number of projects which were expected to result in large-scale expenditures.

The Industrial Relations Department of the company instituted a modern industrial training programme. The Department installed trained personnel officers in each plant of the Industrial Development Company, and through its employment section processed all applications for employment. The Department laid the foundation for an efficient long-range employment office programme.

The more important operations of subsidiary corporations of the Industrial Development Company are summarized briefly below. The number of employees, payrolls and gross sales of the company's subsidiaries in June 1948 are shown in the following table.

INDUSTRIAL DEVELOPMENT COMPANY: EMPLOYMENT, PAYROLLS AND GROSS SALES OF SUBSIDIARIES, JUNE 1948

(In thousands of United States dollars)

Subsidiary	*Number of workers*	*Annual payroll*	*Annual gross sales*
Glass Corporation	176	206	2,400
Cement Corporation	156	268	3,200
Pulp and Paper Corporation	173	151	1,000
Clay Products Corporation	205	202	800
Shoe and Leather Corporation	282	167	1,000
TOTAL	992	994	8,400

Source: Caribbean Commission, United States section, *Industrial Development of Puerto Rico and the Virgin Islands of the United States* (Trinidad, July 1948), page 184.

Glass Corporation. A factory for manufacturing glass containers, the first major activity of the Industrial Development Company, was incorporated 24 February 1943 as the Puerto Rico Glass Corporation.

The plant, which began operations in January 1945, was highly mechanized. It employed an average of about 200 persons, and produced approximately 100 tons of glass a day. At maximum efficiency, its yearly production was about 4.8 million cases of glass containers.

In the fiscal year 1947, when the rum industry upon which it is dependent suffered a recession, the corporation showed a net loss amounting to $464,148. The corporation studied the possibility of diversifying its production, and facilities were completed for making drug, beer and soft-drink bottles.

Cement Corporation. The Cement Corporation was organized on 19 February 1938, with an authorized capitalization of $1.5 million. The cement plant, built by the Reconstruction Administration, was acquired by the newly organized corporation on 16 January 1939. The plant was owned and controlled by the Cement Corporation until 11 May 1942, when the rights and interests of the Government of Puerto Rico were transferred to the Industrial Development Company, and the corporation became a subsidiary of the Industrial Development Company.

The plant began operations early in 1939 with a production capacity of 1,000 barrels of cement a day. The corporation foresaw the possibility of greater demand for its product throughout the island and began to expand its plant facilities in 1940. Although additional plant and equipment were purchased, they could not be placed in operation until the latter part of 1943 because of limitations imposed by the war. In 1948, with all kilns and mills in operation, the plant had a production capacity of more than 800,000 barrels a year. Total sales for 1947 amounted to 801,454 barrels, with a net value of $2.1 million; demand for cement far exceeded the supply.

In 1945 the Board of Directors of the Cement Corporation approved the expenditure of $500,000 to increase plant capacity by one-third. Because of difficulties in securing equipment, much of the expansion programme, including mechanization of the quarry, installation of an additional stone crusher and construction of cement silos and a packing house, was not realized until 1947. Completion of the third kiln in 1947 was expected to raise production for 1948 to nearly a million barrels.

Pulp and Paper Corporation. A study of the feasibility of making paper-board from waste paper and bagasse pulp was begun in January 1942. As a result of this study, the Puerto Rico Pulp and Paper

Corporation was organized on 23 April 1944. Construction of a plant was begun in May 1944, and it was in operation by the end of that year.

During the fiscal year 1947, the corporation's operations showed a loss of $60,532, but the financial loss was considered outweighed by the benefit to the general economy. The mill was the sole source of paper-board when importations were cut off. Puerto Rican industries using paperboard containers, especially the important rum industry, would have been seriously affected, if not paralysed, without the output of the mill.

An acute water shortage which resulted from a serious drought in 1947 caused the mill to shut down during June 1947. This, together with supply and equipment difficulties and a labour dispute, contributed to the net loss for the fiscal period, when production amounted to only 5,364 tons compared with 12,000 tons, the yearly capacity of the mill. To place the mill on a sound competitive footing, the Industrial Development Company approved a plan for capital improvements costing $200,000.

Clay Products Corporation. The Puerto Rico Clay Products Corporation was organized 6 November 1944. Prospects for a ceramic industry were studied experimentally in a small private ceramics factory for glazed wall-tiles, which was operated by the Industrial Development Company. As a result, the company outlined a project for the construction and operation of a modern ceramics plant, to manufacture structural tile, bricks, sewer pipe and other heavy glazed products, as well as stoneware, clay pottery, dinner ware and sanitary ware for the Puerto Rican market.

A clay products plant was built, and trial runs were held in the first completed kiln in May 1947. Dies for the manufacture of partition, floor and drain tile were installed, and operations were expected to be in full swing in 1949.

Shoe and Leather Corporation. The primary objective of the corporation was the manufacture of durable, inexpensive, general-utility shoes to be distributed at prices within reach of low-income groups in Puerto Rico.

Although the total cost of the factory was estimated at approximately $500,000, it started operations with an initial investment of about $175,000. When operating at full capacity, the factory employed some 1,000 workers.

The factory started commercial operations in February 1947, and its total sales reached $168,027 by the end of the fiscal year. Its reported net loss was attributed to low production when the plant was first opened; the period from July 1946 to the following February was utilized for training 187 key employees. From January 1948 to 30 June 1948, the corporation earned a profit each month. The production of shoes increased from 74,700 pairs in the year ended 30 June 1947 to 245,456 pairs in the following year.

Textile and ceramic shops. The Industrial Development Company established shops for making and selling ceramics and fabrics woven from domestic fibres, in order to utilize handicraft skills of Puerto Ricans in light and semi-mechanized enterprises based on products made from domestic raw materials. To promote these ends, the company maintained a laboratory, for testing and developing new processes, for the use of manufacturers already in the field. The company also organized new handicraft enterprises.

Aid to private industry. In 1945 the Industrial Development Company initiated a programme for aiding industry which was of major importance in industrial development. The programme included designing and constructing buildings for lease to private enterprises, participating in new private ventures and furnishing services and facilities to new private enterprises.

Private investors were assisted by the company, which participated in new enterprises by providing part of the required investment. In general, participation by the company consisted chiefly in purchasing land and constructing buildings while private enterprise provided the equipment, working capital and management. The ratio of the investment of the Industrial Development Company to the capital of private enterprise varied with the character of the project.

This programme enabled the company to increase the effectiveness of the capital at its command, to secure experienced management and to utilize existing marketing channels of established organizations.

From 11 July 1945 to 26 May 1947 the aid-to-industry programme appropriated $1.7 million for the construction of 23 new factory buildings; two of these were completed and leased by mid-1947. The remaining buildings were to be leased to manufacturers of artificial flowers, pharmaceuticals, metal products, moulded plywood, jewellery, art pottery, hats and similar products. It was estimated in July 1948 that projects for aid to private industries approved by the Industrial Development Company would create 4,882 new jobs. Work opportunities for 930 persons had been provided at that time in existing enterprises.[33] This was accomplished without financial assistance, by means of technical aid and services.

Tourist trade. The management of the Industrial Development Company encouraged tourist trade as an additional means of providing employment for a large number of Puerto Ricans. After some study, a Tourist Development Division was created within the company, and a new organization, the Puerto Rico Travel Association, was established to co-ordinate and intensify the efforts of local groups in furthering the tourist trade. The work of the Tourist Development Division was a service activity of the company, as distinguished from the company's profit activities, typified by the subsidiary corporations.

---

[33] Caribbean Commission, *op. cit.*, pages 182 and 183.

The Government assisted the company's tourist programme by a law of 9 May 1947, which authorized the company to spend up to $100,000 during 1948 in organizing an office to encourage the tourist trade. The company established the Tourism Advisory Board to implement this act.

The company endeavoured to increase facilities for travellers and visitors, particularly by providing adequate hotel accommodations. The company signed an agreement with a private corporation which was to operate a 300-room hotel in San Juan, to be built and furnished by the company at an estimated cost of $5 million. This hotel was leased to the private corporation for a period of twenty years, at a yearly rental of two-thirds the gross operating profits, plus 5 per cent of the installed cost of furniture and fixtures.

Effect of activities. At the end of the 1947 fiscal year, the Industrial Development Company, by its aid-to-industry programmes and the operations of its subsidiaries, was responsible for a total annual payroll of more than $2 million and average employment of 1,464 persons a week—868 in the subsidiary companies and 596 in enterprises receiving aid. Further expectation of substantial gain is indicated in the following figures, showing estimates of projected employment, payrolls and production for June 1949, in enterprises established or operated under the auspices of the Industrial Development Company.

INDUSTRIAL DEVELOPMENT COMPANY: PROJECTED EMPLOYMENT, PAYROLLS AND VALUE OF PRODUCTION OF SPONSORED ENTERPRISES, 1949

(In thousands of United States dollars)

Type of enterprise	*Estimated employment June 1949 (Number)*	*Estimated annual payroll 1949*	*Estimated annual value of production 1949*
Established with financial assistance	4,822	4,047	30,544
Established without financial assistance	930	544	1,500
Company-owned and operated subsidiaries	992	994	8,400
TOTAL	6,744	5,585	40,444

Source: Caribbean Commission, United States section, *Industrial Development of Puerto Rico and the Virgin Islands of the United States* (Trinidad, July 1948), page 184.

The relative importance of manufacturing in the national economy has increased, in terms of both employment and income. The increase, though modest, helped to relieve unemployment in other sectors, especially in agriculture. In 1920, manufacturing industries provided about one-fourth as many employment opportunities as agriculture, while in 1947 manufacturing employees numbered about half the agricultural employees. In 1947, some 120,500 were engaged in manufacturing, compared with

249,000 engaged in agriculture; in 1920, agriculture employed 244,688 and manufacturing, 62,200. Business expansion, public works, housing projects and industrial development brought about the increase in employment opportunities.

2. *Development Bank*

In 1942, the Puerto Rican Legislature created the Development Bank as a Government instrument to develop the economic resources of the island in conjunction with the Industrial Development Company.

Under the law, the Development Bank was authorized to lend money on land, buildings, machinery and equipment already in operation, or for expanding existing enterprises or for new business ventures. It was also empowered to make loans on inventories.

The bank was capitalized at $20.5 million by the Puerto Rican Government, and by April 1948, it had made 2,487 loans to industrial enterprises, amounting to $17 million.[34] About 60 per cent of the loans were for amounts under $10,000, and 78 per cent were for more than ten years. The loans consisted of mortgages, 82.69 per cent; collateral loans, 16.63 per cent; and unsecured loans, 0.68 per cent of the total. On 23 September 1948, Act 17 reorganized the Development Bank as a Government instrumentality to aid the Government in the more effective performance of its fiscal duties and its governmental responsibility in developing the economy of Puerto Rico, particularly with respect to industrialization. Under this act, the Development Bank of Puerto Rico, created in 1942, was dissolved, and its assets, properties, agency relationships and activities were transferred to a new corporation under the same name.

D. POWER DEVELOPMENT

Fuel for industrial use in Puerto Rico, except for sugar-cane bagasse consumed in sugar factories, had to be imported, since the island produces neither coal nor fuel oil. The island's abundant rainfall and rugged topography are peculiarly favourable to the development of water power. A mountainous divide runs across Puerto Rico from east to west; about one-third of the area is south of the divide. The steeper slopes towards the south coast afford desirable sites for hydro-electric plants, which can be supplied with water diverted through tunnels from the headwaters of streams on the northern slopes, where the rainfall is greater.

In 1915 irrigation projects, undertaken on the south coast several years before, were used by the Government to produce power, when private capital was not available for the development of a power project. The irrigation projects included a reservoir on the northern slope and diversion of water to the southern slopes, resulting in a total fall of 1,300 feet. The first power plant had a generating capacity of 700 kilovolt-amperes in 1915; growing demand soon made further power development imperative. At first, power was used chiefly for irrigation pumps and for lighting in six small towns; power rates were made low in order to permit the use of water as a substitute for costly imported fuel. Earnings from the operation were reinvested in extending the system, and bonds were sold to the public for further development projects.

---

[34] Caribbean Commission, *op. cit.*, page 177.

The success of this undertaking encouraged the Legislature in 1925 to enact a law that provided for the development of water resources. An act of 1927 broadened the scope of the law by creating a working fund from the proceeds of a special tax levied from 1925 to 1930. The 1927 legislation created the Utilization of Water Resources Division of the Puerto Rican Government and authorized hydrographic surveys throughout the island; these surveys were to serve as the foundation for subsequent water development.

Under legislation adopted from time to time, power developments were placed in the hands of two government agencies: the Utilization of Water Resources Division and the Irrigation Service. However, the need for a single agency to handle planning, financing and building under the expanded industrialization programme soon became apparent, and the Puerto Rico Water Resources Authority was established in 1941.

1. *Water Resources Authority*

The Authority was made a Government corporation in May 1941 by Legislative Act 83, which transferred to it the properties and functions of the Utilization of Water Resources Division and certain powers of the Irrigation Service.

The act did not change the essential purposes of the two agencies, but, by creating a single corporate organization, permitted greater freedom of action, initiative, speed and flexibility in organization, finance, construction and operations.

The Authority's governing board consisted of the Governor of Puerto Rico, the Commissioner of Interior and the Commissioner of Agriculture and Commerce. The act provided that the Governing Board appoint an Executive Director to be in charge of the three main divisions of the Authority: the Development and Construction Division, responsible for engineering, surveys, investigations and the design and construction of the various projects; the Management Service Division, including the legal department, the personnel department and the finance section, responsible for the purchase of equipment and supplies; and the Operation of Properties Division, in charge of the power department, the water service and the consumer department. In 1947, the organization had a staff of approximately 1,400.[85]

The management of the Water Resources Authority also operated the Irrigation Service as a non-profit agency during 1946. The Irrigation Service generated and distributed hydro-electric energy as a by-product of its irrigation activities; as both buyer and seller, it interchanged substantial amounts of power with the Authority.

In 1947 the integrated system of the Authority had a total rated capacity of 122,330 kilowatts, including eleven hydro-electric plants with a capacity of 52,080 kilowatts, and five steam electric stations with a capacity of 70,250 kilowatts. The system included properties formerly owned by the Ponce Electric Company; Puerto Rico Railway, Light and Power Company; and Mayaguez Light, Power and Ice Company. Electric utilities of the island not controlled by the Authority included the electric properties of the Isabela Irrigation Service and the South Coast Irrigation Service—both government-owned—and six urban distribution centres of which four were privately owned.

The growth of the Authority's annual load was very rapid. From 1933, when the system sold about 46 million kilowatt-hours to 56,000 customers at a revenue of $0.0508 per kilowatt-hour, to the 1946 fiscal year, sales increased nearly five times, to 259 million kilowatt-hours, distributed to 125,000 customers at a revenue of $0.0223 per kilowatt-hour.[86] Approximately 81.5 per cent of all urban electric customers on the island were served directly by the Authority. Indirectly, the Authority supplied electric current to many of the remaining consumers, some of whom purchased power from the South Coast Irrigation Service and the Isabela Irrigation Service districts with which the Authority interchanged power; others were retail customers of the Authority's wholesale purchasers; while still others were in municipalities served by independent plants which received emergency supplies from the Authority.

2. *Five-year programme*

It was estimated, on the basis of the past growth of the Authority's operations, and the expected demand for service as a result of increased industrialization, that sales of energy might reach 475 million kilowatt-hours in the fiscal year 1952. This was 65 per cent above estimated sales for 1947. To meet this demand, a programme of expansion—a five-year development programme—was planned by the Authority. The estimated capacity and costs of the proposed power projects, some of which were under construction, are shown below.

---

[85] Puerto Rico Water Resources Authority, prospectus for electric revenue bonds, January 1947.

[86] *Ibid.*

ESTIMATED CAPACITY AND COST OF PROPOSED POWER PROJECTS
1 JULY 1947 TO 30 JUNE 1952

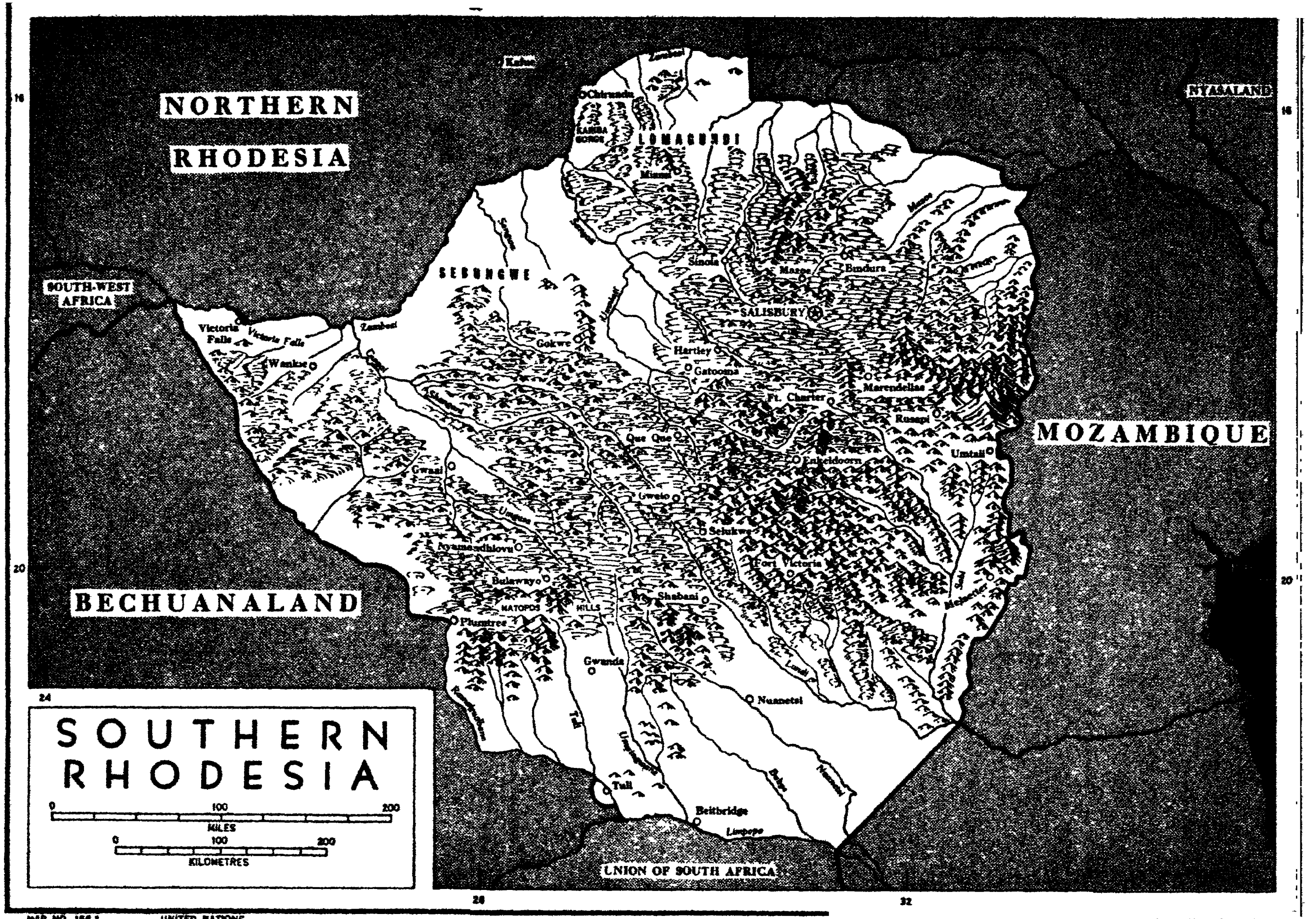
Projects	*Rated capacity (kilowatts)*	*Estimated operating capacity (kilowatts)*	*Estimated average annual output (thousands of kilowatt-hours)*	*Estimated cost (thousands of United States dollars)*	*Estimated fiscal year in service*
Hydro-electric plants:					
Caonillas	17,600	11,000	57,500	9,800	1949
Dos Bocas extension ..	—	2,700	5,200	—	n.r.
Toro Negro extension ..	—	1,700	13,000	670	1950
Caonillas extension ..	—	3,000	25,000	3,000	1951
El Yunque	8,000	3,400	41,000	3,000	1952
Total	25,600	21,800	141,700	16,470	
Steam electric stations:					
San Juan	40,000	40,000	228,000	7,000	1950
Mayaguez unit.	5,000	5,000	28,500	500	1948
Total	45,000	45,000	256,500	7,500	
GRAND TOTAL	70,600	66,800	398,200	23,970	

Source: Puerto Rico Water Resources Authority, prospectus for electric revenue bonds, January 1947.
— Nil.
n.r. Not reported.

The five-year development programme, which formed the basis for a $50 million revenue bond proposal, was begun in the fiscal year 1948. The Caonillas dam, part of the $10 million project, was completed, and water was impounded for use in the Caonillas hydro-electric plant. Field construction was also started on the San Juan steam electric station, which was the largest single construction project in the five-year programme.

During the year ended 30 June 1948, an engineering report was issued on the south-western Puerto Rico project, known as the Lajas Valley project. This undertaking was expected to add 26,000 kilowatts of hydraulic generating capacity to the Water Resources Authority's system. It was planned to use water passing through these hydro-electric plants to irrigate approximately 26,000 acres of land and to create an entirely new and highly productive agricultural area on the island.

SOUTHERN RHODESIA



MAP NO 156.3 UNITED NATIONS
JANUARY 1949

UN PRESENTATION 996.3

SOUTHERN RHODESIA[1]

I. General organization for economic development

A. GOVERNMENT DEPARTMENTS

Responsibility for stimulating economic development in Southern Rhodesia rests with the Government departments which have jurisdiction over various aspects of development. Thus, the Department of Agriculture and Lands is responsible for irrigation, soil conservation, agricultural economics, animal husbandry and the development of tobacco growing; the Department of Trade and Industrial Development (formerly the Department of Commerce and Industries) is charged with the promotion of secondary industries, as well as the regulation of trade, tariffs and import and export controls;[2] the Treasury has jurisdiction over telecommunications; the Department of Internal Affairs deals with immigration and town planning; the Department of Mines and Transport is concerned with the extension of mines and roads; and the Department of Defence and Air deals with the expansion of civil aviation.

While general economic policy in Southern Rhodesia envisioned the comprehensive development of natural resources and the utilization of the country's industrial potential, until recently there was no centralized plan for economic development.[3]

---

[1] The Government of Southern Rhodesia has furnished information, in reply to the request of May 1947 by the Secretariat of the United Nations, which permits a more complete review than was contained in the first volume of this series, *Economic Development in Selected Countries: Plans, Programmes and Agencies* (Lake Success, October 1947), pages 263-265.

[2] Full information on the reconstruction of Government departments is not available. It was reported in the *Crown Colonist* for January 1949 and *African World* for February 1949 that the Prime Minister had reconstructed the Cabinet to create a new portfolio of Trade and Industrial Development, which replaced the Department of Commerce and Industries. The Department of Mines and Public Works appears to have been reconstituted as the Department of Mines and Transport.

[3] A four-year programme of proposed loan expenditure was recently prepared and was the subject of discussion between the Southern Rhodesian Government and the British Government. The programme was reviewed by the Minister of Finance in his budget statement to the Southern Rhodesian Parliament on 27 April 1949.

According to information issued by the Central Office of Information (London), in the *Commonwealth Survey* for 17 February 1950, the four-year development plan (April 1949 to March 1953) called for a programme of communications, agricultural and irrigation projects and public utilities—chiefly electricity supplies. The plan as approved by the Southern Rhodesian Parliament proposed an estimated expenditure of £48 million over the four-year period, allocated as follows (in millions of pounds): For government departments 22.6, including Public Works 4, Roads 3.8, Irrigation 3, Telegraphs and Telephones 3 and Agriculture 2; for statutory commissions (excluding Rhodesia Railways) 13.4, including Electricity Supply Commission 5, National Building and Housing Board 3.5 and the Rhodesian Iron and Steel Commission 2.5. The total also included £8 million for the Salisbury and Bulawayo city councils and £4 million for other authorities. It was expected that a considerable part of the cost of the plan would be met from local resources, including budget surpluses; loans on the London capital market were also involved.

B. Development Co-ordinating Commission

The need for centralizing and co-ordinating development activities has, however, been felt. In 1947 the Prime Minister of Southern Rhodesia appointed a commission of British experts, the Development Co-ordinating Commission, to review the general economic situation of Southern Rhodesia.

On 8 March 1948 this Commission, acting in an advisory and non-executive capacity, published its first interim report to the Prime Minister of Southern Rhodesia. The report contained an appraisal of the Colony's economy and an estimate of the possible rate of economic development.[4] It also included a number of recommendations and a suggested priority list for implementing various development projects.

The Commission considered that earlier estimates of the rate of possible economic development were exaggerated. With transport the basic limiting factor in the rate of development, the Commission concluded that 1948 would have to be a period of consolidation and preparation but that very substantial progress could be achieved in 1949. The Commission estimated that economic activity could rise to 118 per cent of the June 1946 level by June 1948 and that there could be further increases to an index of 121 in January 1949 and to 134 in June 1949; by January 1950, after about three and a half years, the rate of economic activity might be 52 per cent over the June 1946 level.

The Commission divided the estimated requirements for development into immediate, short-term and long-term undertakings, as follows:

Immediate and urgent projects:

(*a*) To improve rail and port facilities in order to accelerate coal, chrome and copper transportation. More housing accommodation for communications personnel and supplies of cement, bricks and water-pipe were also considered key essentials;

(*b*) To increase beef raising, which would require fencing wire and foreign exchange resources to purchase heavy equipment. It would also entail a number of water conservation schemes;

(*c*) To establish a Central Economic Committee to focus and integrate projects in Southern Rhodesia and to relate them to activities in other central African territories;

(*d*) To improve commercial contacts with British firms.

Short-term projects:

(*a*) To continue work on the Kariba hydro-electric generating scheme;

(*b*) To establish experimental agricultural plots in the Sabi valley;

---

[4] Southern Rhodesia, Development Co-ordinating Commission, *First Interim Report* (Salisbury).

(*c*) To quadruple the capacity for producing iron and steel at Que Que and to install a steel strip mill;

(*d*) To increase the capacity of the Government cotton spinning mills at Gatooma to 100,000 spindles and to co-ordinate cotton growing by the indigenous population with animal husbandry;

(*e*) To extend the system of subsidies on gold mining;

(*f*) To co-ordinate road and railway freight capacity;

(*g*) To undertake research in tobacco pestology and in growing and picking techniques;

(*h*) To examine the suitability of land around Chirundu, in the Zambezi valley, for sugar production;

(*i*) To institute a system for adequately recording births, deaths and infant mortality among the indigenous inhabitants.

Long-term undertakings:

(*a*) To entrust the complete examination of a rail and port project for the west coast to competent professional authorities;

(*b*) To investigate fish cultivation in inland waters.

The Development Co-ordinating Commission's second interim report[5] dealt chiefly with a five-year plan for agriculture. It emphasized the proper conservation of natural resources and the production of agricultural raw materials that would be useful to the country's industries, in place of importing goods. The Commission considered the following essential to the stabilization of Southern Rhodesian agriculture: (*a*) farming systems adapted to local conditions; (*b*) mixed farming and crop rotation; (*c*) co-ordination of production among different farming regions; (*d*) price and market guarantees for at least four-year periods; and (*e*) balanced relationships among prices guaranteed for different commodities.

According to this report, "nothing in the co-ordination of development for Southern Rhodesia can exceed in importance the ensurance of an adequate food supply for the country's growing population". The normal production of staple foodstuffs in recent years was reported well below requirements, and substantial improvements in diet were considered necessary to improve the health and the working efficiency of the population.

The success of the five-year plan for agriculture was deemed to rest on the development of large-scale and small-scale irrigation works, the dissemination of agricultural information and the solution of the acute problem of lack of adequate labour. The Commission warned of the grave danger to Southern Rhodesia's economy if adequate soil and water conservation measures were not adopted within the next two decades.

---

[5] "Southern Rhodesia's Agriculture", *Commonwealth Survey,* 5 March 1949, pages 13 and 14.

The third interim report of the Development Co-ordinating Commission of Southern Rhodesia, published early in 1949, reviewed the economic developments of 1948 and offered suggestions for further development.[6] The report emphasized the necessity of providing food, housing and transport facilities in order to carry out the economic programme. The Commission advocated caution, particularly with respect to the large-scale development schemes recommended for Southern Rhodesia; the implementation of such schemes was considered more difficult than had been contemplated.

On the basis of its investigations the Development Co-ordinating Commission arrived at the following general conclusions:

(*a*) The rate of economic change closely approximated the forecasts of the first interim report;

(*b*) A number of schemes—large-scale irrigation, hydro-electric generation, iron and steel manufacture, opening of new ore deposits and building of new channels of transportation—had been over-publicized;

(*c*) Southern Rhodesia's major requirement was to become as nearly self-sufficient in food supplies as possible;

(*d*) Housing continued insufficient and the lag increased annually;

(*e*) The most urgent need was for capital equipment, but signs of financial caution were becoming apparent; and

(*f*) The rate of immigration should be balanced against available living accommodations and social services, such as schools and hospitals.

The report listed a number of concrete accomplishments during 1948. The iron and steel plant at Que Que, which began operations in 1948, produced at the rate of about 110 tons of pig-iron and 80 tons of steel a day. Recently constructed steel rolling mills were also placed in operation. The Commission recommended that the Que Que plant should be expanded to produce 150,000 tons of steel ingots per year in order to meet the requirements of the central African area. Asbestos cement plants under construction were expected to produce 100,000 lengths of pipe by the end of 1949, and a second plant with similar capacity was to be put into production by April 1950. Cement production, which had not met local needs, was expected to increase by some 100,000 tons per annum immediately, and by another 100,000 tons annually early in 1950. The Inter-Territorial Hydro-Electric Power Commission has continued its investigations of the power potentialities of the Zambezi and Kafue Rivers.

On the negative side, the Development Co-ordinating Commission noted the need for 6,000 new houses yearly although actual construction could not supply even half that number. The Commission further called attention to the chronic labour shortage on farms; it indicated that there was evidence of considerable overstocking by many merchants; and it pointed to Southern Rhodesia's continued dependence on external sources of capital for the development programme.

---

[6] Excerpts published in *East Africa and Rhodesia,* 7, 14 and 28 April 1949.

Finally, the third interim report listed in detail the recommendations it considered urgent for the sound economic progress of the country. The major recommendations included the storage of grain during good seasons, preferably in the producing areas; the stimulation of small-grain cultivation in areas of low rainfall and the stabilization of the price of small grains as an incentive to farmers; the communal use of certain agricultural equipment, such as tractors and combine harvesters; the production of sufficient food crops by tobacco farmers to supply the indigenous labour employed; the study of coal resources, hydro-electric power and chemical production on an integrated basis; the widening of the tax base; and the tightening of the immigration restrictions of October 1948. In addition, the Commission supported the recommendation of the Central African Council that the economic, strategic and geographical implications of a west coast railway and port be investigated.

C. CABINET CO-ORDINATING COMMITTEE

It was reported in January 1949[7] that the Prime Minister had appointed a Committee of Ministers in order to ensure the co-ordination of plans for economic development. According to the report, the Minister of Finance was designated presiding officer; other members were the Minister of Mines and Transport, the Minister of Agriculture and Lands and the Minister of Trade and Industrial Development. The reports of the Committee are to be presented to the Cabinet which is to provide the secretariat for the Committee.

II. Agencies for industrial expansion

The Department of Trade and Industrial Development, which is largely responsible for the encouragement of industrial development, has established three principal agencies to assist industrial expansion: the Tariff Advisory Committee, the Industrial Development Commission and the Iron and Steel Commission.

A. TARIFF ADVISORY COMMITTEE

The Tariff Advisory Committee has been placed in charge of the investigation of applications of secondary industries for tariff assistance. This Committee was established to implement the recommendations of a committee of inquiry into the protection of secondary industries, which had suggested the imposition of protective import duties for basic industries, provided they were competitive, and the practice of suspending import duties to foster the establishment of new industries.

---

[7] *South Africa,* 1 January 1949, page 13.

The Tariff Advisory Committee has recommended rebates on import duties and has prepared an interim customs agreement with the Union of South Africa. The interim customs agreement came into force on 1 April 1949.

B. Industrial Development Commission

The Industrial Development Commission, established under the Industrial Development Act of 1944, consisted of five members appointed by the Governor. Its functions were "to advise the Government of the Colony on all matters relating to the establishment, development, improvement and efficient conduct of industry and industrial developments in the Colony" in order to ensure a co-ordinated and balanced programme of industrial development; and to promote or assist in the financing or promotion of new industries and industrial enterprises as well as in the expansion and modernization of existing enterprises "to the end that the economic requirements may be met and industrial development within the Colony may be planned, expedited and conducted on sound business principles".[8]

The Commission was empowered to promote companies, with the approval of the Minister of Finance, provided all shares in such companies were offered to the public; to conduct experiments or undertake research; to lend money; to acquire financial interests; to provide capital or give assistance by underwriting; to deal in movable property, including stocks and shares; to act as manager, secretary or consultant; and to carry on the normal business of such enterprises, subject to restrictions imposed by the Minister of Finance.

The Commission was financed by the Government in the form of advances from loan funds, which bore interest totalling £38,870[9] on 31 December 1946, and advances from the revenue fund, which were free of interest. The latter were provided to meet the cost of free services given by the Commission to the public or to Government agencies, as well as the cost of special investigations and requested research work.

The most important activities of the Commission concerned the production of cement, phosphates, starch, wire and cable and utensils. The Commission assisted in the establishment of Rhodesia Cement, Limited, with an authorized capital of £600,000. In 1947 cement was produced at the rate of 70,000 tons[10] a year, although annual requirements amounted to 160,000 tons. With the additional plant and equipment in process of installation, it has been estimated that, beginning in 1949, production will reach 270,000 tons a year, sufficient to absorb the backlog of demand and to aid in the completion of public works, especially water conservation schemes.

---

[8] Southern Rhodesia, *Statute Laws, 1944,* page 91.

[9] The Southern Rhodesian pound sterling was equal to approximately US$4 until September 1949.

[10] Throughout this chapter, reference to tons indicates the short ton of 907.2 kilogrammes.

The Commission aided in the flotation of a company to manufacture phosphates; participated in the promotion of Rhodesian Cables, Limited, which manufactures cables and plans to produce urgently required fencing wire; assisted in the establishment of a starch manufacturing project; and aided in promoting a company for the manufacture of hollow-ware, aluminium ware and enamel-ware.

By means of loans and advice, the Commission assisted companies engaged in tanning and in the production of glass and of maize products. In addition, it furnished counsel and assistance in regard to the production of sisal, raw hemp and silk, food yeast, ground-nuts, oilseeds and essential oils, magnesite products and arsenic, and bicycles and other items.

The Industrial Development Commission was dissolved on 1 April 1949,[11] and its functions were taken over by the Department of Trade and Industrial Development. Earlier, in announcing the termination of the Commission, Southern Rhodesia's Minister of Trade and Industrial Development stated that it was not proposed to continue the policy of development loans to industry by Government since it was felt that this function is one which normally should be taken over by private enterprise.[12]

C. Iron and Steel Commission

The Rhodesian Iron and Steel Commission was established in 1942. It consists of three to five members appointed by the Governor. Its object is "to secure the fullest development, consistent with economy, of the manufacture of iron and steel within the Colony and to secure that such iron and steel as is manufactured by the Commission is sold at reasonable prices".[13]

For these purposes, it is specifically empowered to purchase and operate iron foundries, steel mills, collieries and coke and other plants; to investigate and prospect with a view to discovering deposits of iron-ore, coal, lime, etc.; and to purchase other enterprises engaged in similar pursuits.

The law provides that the undertakings of the Commission are to be administered on business principles, "due regard being had to the promotion by means of cheap iron and steel, of agricultural, industrial and mining development within the Colony".[14] Earnings of the Commission may not normally exceed the amount needed for maintenance, replacement and interest payments on the initial capital; the surplus above this amount is to be paid to the Treasury.

---

[11] Colony of Southern Rhodesia, *Government Gazette Extraordinary,* 26 April 1948.

[12] *South Africa,* 19 March 1949, page 243.

[13] Southern Rhodesia, *Statute Laws, 1942.*

Immediately upon its establishment, the Commission assumed control of the properties and operations of the Rhodesian Iron and Steel Corporation, Limited, which had been created as a joint corporation of the Government and private enterprise, for the purpose of initiating iron and steel production in Southern Rhodesia. The corporation had not succeeded in the venture and its affairs were wound up; it received payment from the Government Treasury in consideration of the transfer of its properties to the Commission.

The Commission built the first iron and steel plant in Southern Rhodesia at Que Que, at a cost of £1.5 million. Production was begun in April 1948 and was expected to reach 40,000 tons of pig-iron and 20,000 tons of raw steel in the first year. Iron-ore and dolomite are available in large quantities in the immediate vicinity of the plant, but coking coal is obtained from the collieries at Wankie, a distance of some 350 miles.

Production of finished steel products, steel cables and fencing has been undertaken near Que Que by a private company which will use the raw materials produced by the Commission.

III. Mining

Mining plays a very important part in the economy of Southern Rhodesia. In 1948, the value of all mining products—chiefly gold, asbestos, coal, chrome and mica—totalled more than £8.9 million.[15]

The further development of mining activity is being fostered under the authority of the Minister of Mines, by the Departments of Mines, Mining Engineering and Geological Survey. The Department of Mines administers mining legislation and renders financial assistance to the mining industry; the Department of Mining Engineering provides technical advice; and the Department of Geological Survey conducts surveys of territory, gives geological advice and analyses minerals.

Under the Southern Rhodesian Mines and Minerals Act of 1935, as amended in 1941 and 1946, the right to mine and search for minerals is vested in the Government. However, all land—except, chiefly, land under cultivation—is open to prospectors upon payment of a small fee. To maintain mining rights, a certain minimum amount of development must be undertaken each year.

---

[14] Southern Rhodesia, *Statute Laws, 1942.*

[15] *Economic and Statistical Bulletin of Southern Rhodesia,* 7 February 1949, page 22.

A. GOLD

The Government renders considerable and varied assistance to mining—mainly to gold-mining. The value of gold mined in 1948 was nearly 50 per cent of the total value of all minerals produced. The Gold Subsidies Act of 1947 authorized subsidies for gold production at a maximum of £2 a fine ounce. A new gold subsidy scheme became effective in June 1949, under which payments apply only to mines that produce not more than 3,000 ounces a month, at the following sliding scale: 1 shilling to 5 shillings per ton on ore with a recovery grade not exceeding 4 pennyweight; thereafter, the subsidy is reduced by a penny a ton per tenth of 1 pennyweight until it ceases at 10 pennyweight.[16]

A project to assist former servicemen by helping them to reopen and work dormant gold-mines has also been undertaken. Government aid has been deemed essential for these ventures because of the high cost of production and the heavy initial capital outlay. If successful, the servicemen are expected gradually to repay the amount advanced to them.

Other substantial assistance to gold-mining has been provided by the roasting plant at Que Que, established by the Government in 1937. This plant is operated on a non-profit basis and has been subsidized by the Government to a maximum of £10,000 per annum. The plant extracts gold from arsenic concentrates if the arsenic content is very high and individual mines cannot treat them. By recovering over £1 million in gold since 1937, the plant has enabled mines producing such ore to remain in existence.

B. COAL AND CHROME

The first interim report of the Development Co-ordinating Commission suggested that an additional coal-mine be developed. It was estimated that an expenditure of £2 million for this purpose would provide an additional output of 3 million tons and would enable the territory to export a total of 4 million tons annually. At present, coal production in Southern Rhodesia is confined to Wankie, where only a small part of the existing coal-fields are being worked. Total coal resources, contained in seams 26 feet thick, were estimated at 5,200 million tons by the Chairman of the Development Co-ordinating Commission.[17] The price at the pit-head of the high quality coking coal was under 10 shillings per ton in 1948. However, the development of coal-mining is conditioned by improvement in the railway system.

---

[16] *East Africa and Rhodesia,* 26 May 1949, page 1211.
[17] *Hansard,* vol. 443 (1947), page 1965.

Development of chrome-mining is also handicapped by the insufficiency of railway transport, which prevents the output of the mines from being exported.

Mining in general has been assisted by the Electricity Supply Commission, described below, which has constructed power lines to new mining districts to facilitate mining development although such construction may not be immediately profitable.

IV. Agriculture

A. PRODUCTION AND MARKETING

The Department of Agriculture and Lands, under the Minister of Agriculture and Lands, is responsible for the general development of agriculture and animal husbandry and for soil conservation. A number of subsidiary boards have been established to deal with the most important special problems. Some of these boards have important executive as well as advisory functions. Because of the absence of universities and similar scientific institutions in Southern Rhodesia, the Department of Agriculture has also undertaken research, largely in problems of agriculture, pasture, animal health and husbandry, tobacco, plant pathology, chemistry and entomology.

1. *Tobacco*

Tobacco is the most important export crop of Southern Rhodesia; in 1947/48 the total crop amounted to 77.9 million pounds, compared with 23.4 million pounds in 1938/39. The tobacco crop for 1948/49 is estimated at 76.3 million pounds.[18]

Tobacco policy, under the jurisdiction of the Tobacco Research Board, is directed towards expanding production and improving the quality of the crop. The work of the Board is considered successful and is being continued.

The Tobacco Marketing Board and the Turkish Tobacco Industry Board were established to aid in marketing the crop and to direct tobacco exports to hard currency countries. In 1947/48, 1.4 million pounds of the total tobacco export of 48.7 million pounds was shipped to the United States.[19]

2. *Food products*

Maize. Corn is the basic food of Southern Rhodesia. Before the war it was an export crop, and difficulties in the marketing of exports led to the establishment of the Maize Control Board. The increase in population and in consumption requirements and the effects of a series of droughts have changed the situation. Maize production by Europeans in

---

[18] *Economic and Statistical Bulletin of Southern Rhodesia,* 21 May 1949, page 2.
[19] *Ibid.,* 21 March 1949, page 40.

Southern Rhodesia fell from 1.2 million bags of 200 pounds each in 1938/39 to 0.9 million bags in 1946/47, and rose again to 1.9 million bags in 1947/48; a preliminary estimate places the 1948/49 maize crop at 1.2 million bags.[20] Southern Rhodesia exported 79.3 million pounds of maize in 1938, less than 6 million pounds in 1945, 1.1 million pounds in 1946 and 0.7 million pounds in 1947; maize imports, meanwhile, amounted to 2.4 million pounds in 1938, 40.0 million in 1946, and 206.2 million pounds in 1947.[21]

Maize production is being encouraged by long-term price stabilization; the producer is guaranteed a basic price for four years, and provision is made for price variations in accordance with changes in production costs.

Dairy products. The Dairy Industry Control Board controls the price of dairy products and minimizes seasonal variations.

Pigs. The Pig Industry Board assists actively in the expansion of the industry.

Beef. The Development Co-ordinating Commission considered an increase in beef cattle an especially urgent requirement for improving the diet of the indigenous population. The Commission strongly recommended an increase of 900,000 head of cattle over a five-year period, to be divided equally between European and indigenous inhabitants.

Refrigeration. The Cold Storage Commission was established in 1937, under a law which provides for the operation of abattoirs and refrigerating plants for chilling, freezing and storing meat for export and for domestic consumption. It has been of major importance in developing meat production in Southern Rhodesia and has a monopoly of meat refrigeration for export. The Commission has established abattoirs and refrigerating plants at Bulawayo, Salisbury, Umtali and Fort Victoria, at a capital cost of £500,000.

3. *Cotton*

The Cotton Research and Industry Board was established to further cotton production and manufactures. During the war, the Board established a pilot cotton spinning plant at Gatooma. The capacity of the plant, initially 1,066 spindles, was increased to 8,000 spindles, but its production is still short of requirements.

B. SOIL CONSERVATION

The Natural Resources Board, established by the Natural Resources Act in 1941, is the principal agency concerned with soil conservation and with agricultural and water resources. It exercises general supervision over natural resources and recommends to the Government "the nature of legislation deemed necessary [by the Board] for the proper conservation, use and improvement of national resources". The most important result of the recommendations of the Natural Resources Board was the adoption by the Government of a fifteen-year £10 million conservation plan.

---

[20] Economic and Statistical Bulletin of Southern Rhodesia, 7 May 1949, page 2.

[21] Southern Rhodesia, *Annual Statement of the Trade of Southern Rhodesia, 1938 and 1947* (Salisbury).

This plan, which is being implemented by the Department of Irrigation, is focused largely on the improvement in conditions of agriculture and on the development of pasture land and forests. The chief provisions of the plan include conservation measures, such as fencing and protecting grazing regions and reclaiming gullies in areas occupied by indigenous inhabitants; constructing reservoirs in areas occupied by Europeans and by indigenes; constructing major conservation works to provide water for irrigation and for industrial and mining needs; subsidizing individuals or conservation committees for certain categories of conservation work; boring for water in areas occupied by indigenous inhabitants; controlling gullies on farms of Europeans; and acquiring farms for reclamation and for the establishment of experimental conservation stations.

V. *Electricity*

The Electricity Supply Commission was established in 1936, mainly for the purpose of providing power for the mining industry. The Commission has been financed by advances from the Treasury, but may raise money by means of loans. It operates on a non-profit, self-supporting basis and is compensated by the Government for losses incurred in connexion with power lines for mining development.

The Commission has established a general interconnecting system to co-ordinate all power production in Southern Rhodesia. It has ordered new power stations for Gwanda, Shabani and Umniati, of which only the Umniati station was completed at the outbreak of the war. The Commission does not operate in Salisbury and Bulawayo, the largest townships of the Colony, which are served by municipal plants.

In the year ending 31 March 1947, 1,800 route miles of power line were in service and 132 million kilowatt-hour units were sold under the jurisdiction of the Commission, while in the last pre-war year the power lines extended only 650 miles and power sales amounted to 30 million units.

By 1950, it is planned to add 2,150 miles of power line and to increase the present generating capacity of 36,800 kilowatts by 50,000 kilowatts. The total capital expenditure, which amounted to £3.25 millions in 1947, will then be slightly over £6 million.

Reconnaissance surveys have been in progress since 1941 to determine the feasibility of complementing the present exclusively steam-driven power plants by a hydro-electric station on the Zambezi River at the Kariba Gorge. This project has been considered in connexion with the establishment of a ferro-chrome steel and hematite pig-iron manufacturing plant, which would consume part of the produced power. The latter project is being studied by a British concern at present. In a statement in the House of Commons on 5 November 1947, the Under-Secretary for Commonwealth Affairs declared that if the results of the investigation were favourable, a total investment of £18 million would be made in the Kariba region, of which £13 million would be contributed by the Governments of Southern and Northern Rhodesia and £5 milion by private enterprises.[22] However, the first report of the Development Co-ordinating Commission stressed the necessity of developing the hydro-electric scheme as a separate project, since there are insufficient factual data at present to determine the location of the planned manufacturing units.

VI. Transport

A. Railways

The Government of Southern Rhodesia purchased Rhodesia Railways, Limited, as from 1 April 1947, for £3,150,000—an amount which approximated the capitalization, at 4 per cent, of the dividend of £125,000 "which the Rhodesia Railways were entitled to earn for the year ended 30 September 1947, by the terms of the Railways Act, 1935".[23] The Government raised a loan of £30 million, as part of the issue of £32 million Government of Southern Rhodesia 2½ per cent stock (1965-1970), to finance the purchase and to redeem the balance of £21,750,000 in 4¼ per cent debenture stock of Rhodesia Railways, Limited, outstanding at 30 September 1947, as well as to provide funds for the development of the railways.[24] The total length of railway line is 2,445 miles, extending from the Union of South Africa through Southern and Northern Rhodesia.

The precise form of the new administration of Rhodesia Railways, Limited, has not yet been decided. The second reading of the Rhodesia Railways bill has been moved in the Southern Rhodesian Parliament; according to its provisions, a body to be known as the Rhodesia Railways would be established to concern itself with the "provision, operation and maintenance of all rail transport in Southern and Northern Rhodesia and Bechuanaland". The bill further provides for the transfer to the central African territories "of the undertakings, property, obligations and liabilities of Rhodesia Railways, Ltd.", recognition of trade unions and machinery for the settlement of labour-management disputes. A superior authority, consisting of the Prime Minister of Southern Rhodesia, the Governor of Northern Rhodesia, the High Commissioner of Bechuanaland and one other Southern Rhodesian minister, would be established under the bill.[25]

---

[22] *Hansard*, vol. 443 (1947), page 1969.

[23] Railway Gazette Publication, *Overseas Railways 1948* (London), page 8.

[24] *Ibid.*, pages 8 and 9.

Capital expenditures of about £10 million are authorized or contemplated for the railway by the end of 1950. Orders were placed for about £5.5 million in locomotives and rolling stock, including 22 locomotives for delivery before the end of 1948, 1,262 goods waggons for delivery by the first half of 1949 and 119 passenger cars for delivery by the end of 1949. Owing to this increase in equipment, the carrying capacity of the railway is expected to increase considerably.

Considerable extension of milage is planned as a long-term development project. The first interim report of the Development Co-ordinating Commission recommended the Sinoia-Kafue line as most urgent. The Commission also advised investigation of the possibility of a railway to the west coast of Africa.

B. Roads

Road development in Southern Rhodesia is the responsibility of the Department of Mines and Transport. A ten-year plan of road improvement has been adopted; it provides for reconstruction of existing roads and construction of feeder roads to enable mining and farming areas to transport their produce to main roads or railways. The plan covers 10,420 miles of road and its cost is estimated at £12 million.

C. Port Facilities

The sea trade of Southern Rhodesia depends on the port of Beira in Mozambique. The significance of this port to the Southern Rhodesian economy may be measured by the fact that 66 per cent of its imports were sea-borne in 1946, while its main exports—gold, tobacco, asbestos and chrome—are all shipped overseas.

The insufficiency of present facilities in Beira hampers both the export and the import trade of the Colony. Because present development plans would require an appreciably larger volume of goods to be handled in Beira, the possibility of creating another sea outlet by building a railway to the west coast is under serious consideration.

In 1948, the Portuguese Government purchased the Beira Port Company and Beira Railways for £4 million and agreed to undertake port improvements to facilitate the handling of an increasing amount of traffic.[26]

---

[25] *East Africa and Rhodesia,* vol. 25, No. 1287, 2 June 1949, page 1235.

D. AIRWAYS

The Governments of Southern Rhodesia, Northern Rhodesia and Nyasaland co-operated in the field of civil aviation by establishing the Central African Air Authority. The duties of the authority are to promote the progress of aviation, to control licensing and to supervise the Central African Airways Corporation. The latter maintains air transport services in the region; it is a non-profit concern with an authorized capital of £50,000, subscribed by the three Governments.

Apart from this inter-territorial co-operation, Southern Rhodesian authorities have undertaken a programme of aerodrome construction which includes a national aerodrome in Salisbury, two smaller regional aerodromes and a number of fields and landing grounds.

VII. Construction

A. TOWN PLANNING

Town planning in Southern Rhodesia is regulated by the Town and Country Planning Act of 1945, which provides for the control of land subdivision, for planning new townships and for preparing and implementing projects for rural and urban areas. Certain local authorities are made responsible for preparing plans for their areas; others may be required to make such plans. Appeals from the plans and claims for compensation by landowners are dealt with by a special town planning court. The Land Distribution Act of 1947 deals with areas where complete replanning of existing allocations is necessary; such areas are determined by act of Parliament. Redistribution schemes, generally drawn up by local authorities, are subject to the Governor's approval and become mandatory when approved. Compensation is paid to owners whose holdings become less valuable because of the development, while owners whose property has appreciated in value pay for the increased valuation. Planning is done in co-operation with the departments responsible for soil and water conservation and for roads.

B. HOUSING

The severe housing shortage in Southern Rhodesia was aggravated by building restriction during the war and by an influx of immigrants.

The Building Act of 1946 established the National Building and Housing Board, under the jurisdiction of the Minister of Finance. The Chairman of the Board is the building controller.

---

[26] Barclays Bank, *Overseas Review*, December 1948, page 11.

The main objective of the Board is to alleviate the building shortage in Southern Rhodesia by (*a*) constructing, or encouraging the construction of, the largest practicable number of dwellings and other buildings within as short a time as possible; (*b*) assisting individuals, in every possible way, in obtaining accommodations; (*c*) acquiring an adequate supply of building materials for use in the Colony and distributing such materials to the best advantage; and (*d*) increasing the number of persons employed in the building industry.

In furthering its objectives, the Board, which controls the issuance of all building permits, has attempted through its policy in authorizing construction to concentrate most of the Colony's building activity on housing. It has also embarked on national housing projects in several centres. In addition, the Board has arranged for bulk imports of building materials and for the immigration of skilled workers in the building trades.

VIII. Special aspects

A. INDIGENOUS AFFAIRS

Southern Rhodesia's economic policy with respect to indigenous inhabitants takes account of a number of factors, including the increase in the indigenous population from 515,000 in 1902 to nearly 2 million in 1948;[27] the influence of European immigration on the problem of allocating land in the Colony; economic pressure arising from the growth of population and over-grazing caused by the increase in the number of cattle owned by indigenous inhabitants; and the need to increase indigenous employment.

Under an Order in Council of 1920 and the Land Apportionment Act of 1930, the 96,213,120 acres of land in Southern Rhodesia were divided as follows:

	Number of acres
Indigenous reserves	21,127,040
Indigenous (purchase) areas	7,859,942
Undetermined area	62,563
Unassigned area	17,780,918
Forest area	987,745
European area	48,394,912

While indigenous inhabitants occupy reserves on a communal basis, they may acquire or lease farms in certain purchase areas. Unassigned area, which cannot be alienated, may be incorporated in the areas for Europeans or for indigenes with the approval of the Secretary of State.

---

[27] Provisional estimate.

The rise in the number of cattle owned by indigenous inhabitants from some 55,000 in 1902 to nearly 1.9 million in 1946, together with a large increase in the number of acres cultivated by indigenes, has resulted in an increasing pressure on the land. Agricultural development plans have been designed to improve the efficiency of farming methods and to diminish pastoral nomadism.

Employment of indigenous inhabitants increased from some 24,000 in 1902 to nearly 220,000 in 1947, exclusive of those employed in industry.[28] In its third interim report, the Development Co-ordinating Commission stressed the chronic labour shortage on European farms and suggested the following remedies: stabilization of labour by means of better housing and living conditions; increased incentives to work by stimulation of wants and provision of more opportunities for advancement; and mechanization of agriculture and closer supervision of the labour force.[29]

The Division of Native Affairs deals with the economic development of the indigenous inhabitants. It is headed by the Chief Native Commissioner, who is also the Secretary for Native Affairs. He is responsible to the Prime Minister, who is also the Minister for Native Affairs.

The Division of Native Affairs includes several departments dealing with special phases, as follows:

(*a*) The Native Department, which administers and supervises development work among indigenous peoples in the local areas;

(*b*) The Native Agriculture Department, which deals with agricultural and conservation problems;

(*c*) The Department of Native Labour, which supervises indigenous labour under the various labour laws of the Colony;

(*d*) The Native Engineering Branch, which deals with the provision of village settlements, secondary roads, bridges, etc.;

(*e*) The Native Area Administration, which furnishes advice and recommendations on matters relating to areas for indigenous inhabitants and village settlements; and

(*f*) The Native Education Department, which controls education among the indigenes of Southern Rhodesia.

In agriculture, programmes relating to indigenous economic development include demonstrations, education, irrigation, surveys, experimental stations, livestock improvement and forestry. With regard to labour, emphasis has been placed on questions of supervision, improvement of labour conditions, industrial conciliation, migrant labour and labour shortages. In housing, the provision of homes, hospitals and schools is being undertaken, at a cost of £75,000 a year, and a number of village settlements for indigenous inhabitants have been established in the European area. In industry, initial steps have been taken by the creation of rice hulling plants for the indigenous population, a factory for the assembly of farm carts and a sunn-hemp fibre extraction plant.

---

[28] *Economic and Statistical Bulletin of Southern Rhodesia*, 21 May 1949, page 4.
[29] *East Africa and Rhodesia*, 14 April 1949, page 1005.

The first interim report of the Development Co-ordinating Commission stressed the necessity of improving the diet of the indigenous population by increasing the consumption of maize and beef, as a necessary condition for improving the health and the agricultural and industrial productivity of the indigenous population. The Commission, underlining the necessity for mechanization in industry, also recommended that "the Native labourer should be allowed to undertake tasks suited to his ability, for which he should be adequately rewarded".[80]

B. IMMIGRATION

The immigration policy of the Colony favours British immigrants. Subjects of the United Kingdom who possess certain occupational qualifications, reasonable financial resources, good character and good health may be admitted after screening. The Government of the United Kingdom assists a small number of emigrants to Southern Rhodesia by providing free transportation by ship. The immigration of non-British subjects is limited to 8 per cent of the total British immigration of the preceding year.

Immigration to Southern Rhodesia became substantial as soon as shipping space became available. Immigration during 1947 amounted to 13,595 persons, and 17,037 were admitted in 1948.[81] In 1948, the total European population amounted to about 103,000.

Because of the considerable volume of immigration and the limited absorptive capacity of the country, the Government in 1947 established the Immigration Advisory Council, an advisory body charged with the study of problems arising from immigration. Its objective is to achieve a balanced distribution of the population, both European and indigenous, in view of the Colony's resources. Immigration restrictions were tightened on 1 October 1948, and there was an appreciable curtailment in the number of immigrants entering Southern Rhodesia after that date.

C. PROJECT FOR THE SABI REGION

One of the important projects for the development of Southern Rhodesia is centred in the Sabi region, which is being surveyed by a British firm for its agricultural and mineral resources.

Fibres, wattles, tea and citrus and other fruits are being cultivated in the Sabi region at present; it is estimated that irrigation in this area might increase the area of cultivable soil by 500,000 acres. The Development Co-ordinating Commission recommended that representative areas of the region should be placed under experimental cultivation immediately. An interim report[32] on the development of the Sabi region recommended an immediate start on a pilot irrigation scheme of 20,000 to 30,000 acres. Two suitable sites for dams have been located on the Sabi River; their total cost is estimated at £1.3 million to £1.6 million.

---

[80] British Information Services, Commonwealth Section, *Summary of Southern Rhodesia Development Co-ordinating Commission: Report,* typescript (New York).

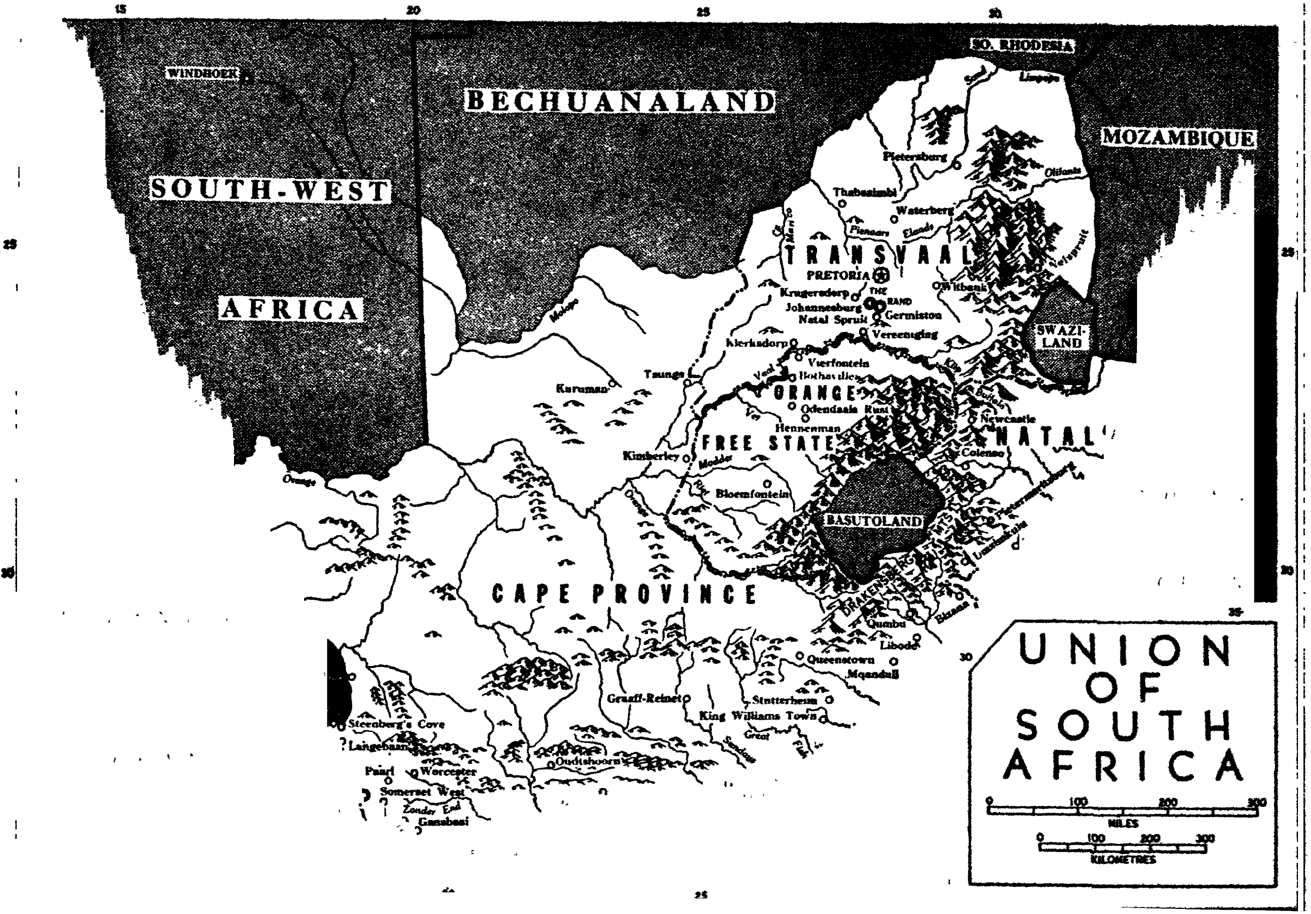
[81] Including Royal Air Force permanent staff and their dependants: *Economic and Statistical Bulletin of Southern Rhodesia,* 7 February 1949, page 7.

Results of a geological survey of iron ore and coal deposits in the lower Sabi valley have not encouraged further development of these resources. The coal samples that were analysed were of poor quality, with high ash and low volatile content.

---

[32] Barclays Bank, *Overseas Review*, May 1948.

UNION OF SOUTH AFRICA


UNION OF SOUTH AFRICA
0 100 200 300 MILES
0 100 200 300 KILOMETRES
15
20
25
30
35
SOUTH-WEST AFRICA
WINDHOEK
BECHUANALAND
SO. RHODESIA
MOZAMBIQUE
SWAZI-LAND
BASUTOLAND
TRANSVAAL
ORANGE FREE STATE
NATAL
CAPE PROVINCE
Limpopo
Olifants
Pietersburg
Thabazimbi
Waterberg
Elands
PRETORIA
Witbank
Krugersdorp
THE RAND
Johannesburg
Germiston
Natal Spruit
Vereeniging
Klerksdorp
Vierfontein
Bothaville
Vaal
Vet
Odendaals Rust
Henneman
Kimberley
Modder
Riet
Bloemfontein
Taungs
Kuruman
Molopo
Orange
Klip
Buffalo
Newcastle
Colenso
DRAKENSBERG MTS
Qumbu
Libode
Mqanduli
Bizana
Queenstown
Stutterheim
King Williams Town
Great Fish
Sundays
Graaff-Reinet
Oudtshoorn
Steenberg's Cove
Langebaan
Paarl
Worcester
Somerset West
Zonder End
Gansbaai

UNION OF SOUTH AFRICA[1]

I. Economic co-ordination and planning

A. GENERAL BACKGROUND

The Union of South Africa has a population of about 12 million persons on its 472,550 square miles. Much of the land, however, is stony, mountainous or subject to inadequate or irregular rainfall; only about 6 per cent of the total area is under cultivation.

Before the development of its diamond and gold mines, the country's economy was based almost entirely on farming and grazing. The growth of the mining industry was very rapid; in 1912[2] it was the largest contributor to the net national product. Although mining continued to expand it was overtaken by manufacturing, which in 1948 contributed twice as much as mining to the net national product. The general trend towards expansion in manufacturing was greatly accelerated during both world wars.

The comparative shares of manufacturing, mining and farming and fishing in the domestic net national product (at factor cost) are shown below as percentages of the total.[3]

	1912	*1939*	*1948*
Manufacturing	6.8	17.7	22.8
Mining	27.5	20.6	11.4
Farming and fishing	16.1	12.7	15.9

In spite of the large increase in mining and manufacturing, the bulk of the population continued to be dependent upon the land for its livelihood. In 1936, 64 per cent of the working population[4] was employed in agriculture, forestry and fishing, 8.5 per cent in mining and quarrying and 7.7 per cent in manufacturing. Between 1938 and 1948 employment in manufacturing increased 70 per cent, whereas employment in mining declined 5 per cent.

---

[1] Information for this chapter was derived from a reply by the Government of the Union of South Africa to a questionnaire submitted by the Secretariat of the United Nations in May 1947, and from other official sources.

[2] The budget year of the Union of South Africa closes 31 March; unless otherwise noted, annual figures throughout this chapter generally refer to years ended 31 March.

[3] Union of South Africa, Board of Trade and Industries, *Report No. 282, Investigation into Manufacturing Industries in the Union of South Africa,* page 11; South African Reserve Bank, *Quarterly Bulletin of Statistics,* June 1949; figures for 1948 are provisional.

[4] Data refer to gainfully employed Africans of 10 years and over and others of 15 years and over.

The per capita real net national product has grown rapidly since the First World War. Per capita income has been very unevenly distributed as between agricultural and other workers, between unskilled and skilled labour and among the various sections of the population. Certain of the structural changes which have occurred since the mid-1930's are indicated by the following indices of physical production.

PRODUCTION INDICES, 1939 AND 1947
(1934-38 average = 100)

Item	*1939*	*1947*
Agricultural products[a]	130	162
Pastoral products[b]	113	108
Precious metals[c]	104	122
Base minerals[d]	103	176
Power and transport	134	189
Secondary industry	137	197
Building	108	123
Composite index	123	162

Source: Standard Bank of South Africa, "National Income and Production Indices, 1939 to 1947", *Supplement to the Standard Bank Monthly Review,* February 1949.

[a] Maize, wheat, ground-nuts, oats, rye, barley, millet, sugar, wattle bark, wines, brandies, citrus and tobacco crops.

[b] Wool, butter, cheese, cattle, sheep, goats and pigs.

[c] Gold, diamonds, platinum.

[d] Coal, iron, chrome, manganese, tin, asbestos, copper.

Since the inception of the diamond industry about 80 years ago and of gold-mining two decades later, these two industries have earned a substantial part of the foreign exchange required for the Union's imports of consumer and capital goods.

Gold-mining, particularly, has had a central role in economic development, by attracting investment from abroad, by contributing to national income and to net capital formation in the Union and by stimulating the development of transportation, public utilities, engineering and related industries. As a major source of public revenue, gold-mining has contributed to the Government's ability to aid certain other industries.[5] Its special importance has rested in large measure on its earnings of foreign exchange. Before the Second World War the value of currently produced gold exceeded the value of commodity exports by an appreciable sum; even in more recent years production of gold has nearly equalled the value of commodity exports, as the figures below (in millions of United States dollars) indicate.[6]

	1938	*1947*	*1948*
Gold production[7]	426	392	405
Exports (f.o.b.)	141	413	541

---

[5] Union of South Africa, Social and Economic Planning Council, *Report No. 11, Economic Aspects of the Gold Mining Industry* (Pretoria, 1947).

[6] International Monetary Fund, *International Financial Statistics,* August 1949.

[7] Valued at US$35 per ounce.

The appreciation of the price of gold in terms of sterling and South African currency, as a result of the currency devaluation of September 1949, was expected to stimulate gold output. Moreover, the Far West Rand and the Orange Free State were expected to become important producing areas within a few years. However, successive Governments have been concerned about the decline of gold production at some future date, and attention has been given to fostering economic activities based on other resources.

Key mineral resources, in addition to gold and diamonds, include coal and iron ore, which provided the basis for an expanding steel and metal working industry. Use of the extensive coal deposits for power generation also compensated for the lack of important hydro-electric resources; output of coal increased from 15.9 million metric tons in 1938 to 23.6 million in 1948. Also important to the economy are manganese and chrome ores, exploitation of which dated from the inter-war period, and copper, tin, silver, asbestos and other minerals. Between 1939 and 1947, the rate of increase in the production of base metals exceeded the growth of output in any other industrial sector.

The number of industrial establishments in the Union rose from about 4,000 in 1916 to 11,400 in 1946, and employment in manufacturing increased from about 100,000 to over a half-million in the same period. This rapid expansion is partly attributable to the influence of two world wars, the moderate protection policy of the Government and its encouragement of industry after 1924, and the prosperity of the gold industry in the 1930's. Iron, steel and engineering, as well as the textile, footwear and food processing industries, grew rapidly during the Second World War. Post-war expansion and diversification were assisted by a very large capital inflow to the Union of South Africa during 1947 and early 1948. Despite the growth of manufacturing, however, secondary industries produce mainly for the domestic market and are dependent to a large extent on imported materials and capital goods.

The Union of South Africa is not a naturally rich agricultural country, and erosion, denudation and drought constitute serious problems. There was wide divergence between the relative number of agricultural workers in the total labour force and the contribution of agriculture to the total national product. Although agricultural production rose during the inter-war period, it lagged in value behind the increases in mining and manufacturing, as the following indices for 1940 (1925 = 100) indicate.[8]

	Value	*Volume*
Agriculture	116	149
Mining	238	145
Manufacturing	258	312

---

[8] Union of South Africa, Board of Trade and Industries, *Report No. 282, Investigation into Manufacturing Industries in the Union of South Africa*, page 12.

The cereal requirements of the Union of South Africa have grown with the increase in the population and its urbanization and with the rise in per capita income. In abundant harvests, the country produces a surplus of maize, the most important crop, which is then available for export. Production of wheat does not meet domestic requirements, and the sugar crop has been increasingly retained for home consumption. Production of ground-nuts, potatoes and tobacco has expanded above pre-war levels. Sheep raising, which provides the leading export commodity, wool, has declined in the past two decades.

Other important exports of agricultural and pastoral origin include hides and skins, angora, citrus and other fruits, wattle bark and extract, and wines and brandy.

B. PLANNING AND DEVELOPMENT AGENCIES

1. *Social and Economic Planning Council*

The Social and Economic Planning Council, an advisory body, is the only agency concerned with all aspects of economic development. It consists of twelve part-time members appointed by the Prime Minister; its reports are presented directly to him and to both Houses of Parliament. It was established in June 1942, following the recommendations of the Industrial and Agricultural Requirements Commission, that an agency be created to investigate the social and economic system, to advise the Government on development and to co-ordinate the efforts of public authorities with a view to facilitating the formulation of an integrated economic policy.

The functions of the Social and Economic Planning Council were defined as follows:[9]

"(*a*) To investigate and make recommendations as to the best ways of promoting the balanced development of the resources of the Union and its internal and external trade, as well as the prosperity and well-being of its population as a whole.

"(*b*) To examine and make recommendations as to schemes and suggestions made from time to time for the improvement of the social and economic standards of the various sections of the people.

"(*c*) To review the policies and programmes of the various departments and boards which have an economic or social bearing, with a view to advising the Government as to steps which should be taken to secure their better co-ordination.

"(*d*) From time to time to nominate, with the concurrence of the Government, consultative sub-committees for special investigation and advice.

---

[9] Union of South Africa, Social and Economic Planning Council, *First Annual Report for the Year Ended 30th September 1945* (Pretoria), pages 2 and 3.

"(*e*) Generally to advise the Government in regard to social and economic policy."

By the beginning of 1948 the Social and Economic Planning Council had produced eleven reports dealing with various aspects of the South African economy.[10]

2. *Department of Commerce and Industries*

The Department of Commerce and Industries under the Minister of Economic Affairs is the principal Government organization in the field of economic development. Subsidiaries of the department concerned with economic development may be classified into three categories: (*a*) study and investigation, (*b*) administration and control and (*c*) executive implementation.

Study and investigation. The Board of Trade and Industries was established under the Board of Trade and Industries Act of 1924, which was subsequently repealed and superseded by Act 19 of 1944.[11] Subject to the direction of the Minister of Economic Affairs, the Board's responsibilities included advice to the Government on State aid, capital investment and supply for industry, fiscal policy, tariffs, transport, markets, monopolies, dumping, prices and commercial legislation. Reports and recommendations of the Board are submitted to the Minister of Economic Affairs, who, in turn, presents them to both Houses of Parliament.[12]

The South African Shipping Board was established under the Shipping Board Act of 1929, to investigate and report to the Minister of Economic Affairs on matters relating to ocean transport, with particular reference to freight rates.

Administration and control. The Electricity Control Board was established in 1922 by the Electricity Supply Act, to control the distribution of electricity furnished by the Electricity Supply Commission or by private enterprises. The Board was made the licensing authority for all electricity enterprises, other than municipal undertakings, in the Union of South Africa.

---

[10] *Report No. 1, Re-employment, Reconstruction and the Council's Status* (22 October 1942); *Report No. 2, Social Security, Social Services and National Income* (26 November 1943); *Report No. 3, Aspects of Public Service Organization and Employment* (26 November 1943); *Report No. 4, The Future of Farming in South Africa* (31 August 1944); *Report No. 5, Regional and Town Planning* (31 August 1944); *Report No. 6, Social and Economic Statistics in the Union* (31 August 1944); *Report No. 7, Taxation and Fiscal Policy* (20 September 1945); *Report No. 8, Local Government Functions and Finances* (20 September 1945); *Report No. 9, The Native Reserves and Their Place in the Economy of the Union of South Africa* (23 March 1946); *Report No. 10, Public Works Programme and Policy* (16 April 1946); *Report No. 11, Economic Aspects of the Gold Mining Industry* (17 December 1947).

[11] Union of South Africa, *Statutes, 1944* (Cape Town).

[12] Reports of the Board of Trade and Industries include *Report No. 282, Investigation into Manufacturing Industries in the Union of South Africa* (1945); *Report No. 286, Investigation into the Iron, Steel, Engineering and Metallurgical Industries in the Union of South Africa* (1946); *Report No. 294, Investigation into the Tanning and Footwear Industries* (1947); *Report No. 295, Investigation into the Cement Industry* (1947); *Report No. 296, The Fruit and Vegetable Canning Industry* (1947); *Report No. 298, The South African Sugar Industry—Review* (1947); *Report No. 303, The Clothing Industry.*

The South African Bureau of Standards was established under the Standards Act of 1945, to test and prepare specifications for various commodities and to administer regulations relating to labels, licences and certificates.

The Liquid Fuel and Oil Advisory Board was established under the Liquid Fuel and Oil Act of 1947 to advise the Minister of Economic Affairs on matters relating to the manufacture, disposal, sale and use of liquid fuel and oil. Its members are appointed by the Minister and report to him on all licence applications for the manufacture of liquid fuel or oil.

The law provided that licences should be granted only if the Minister finds the applicant's plans for manufacture satisfactory, and his finances adequate. Under the law, applicants must be nationals of the Union of South Africa, or registered companies whose main offices are located in the country. Licences were made subject to conditions to be determined by the Minister on consultation with the Board. Such conditions might include determination of the maximum and minimum quantities of liquid fuel oil to be manufactured, the period of manufacture, the type of coal to be used, specifications and standards for the product, the manner of issuing shares by the licensee to ensure that control of voting power remains with nationals of the Union of South Africa or companies in the country, the maximum price at which the liquid fuel or oil may be sold, the maximum profits permitted the licence holder, the manner in which the profits are to be calculated and the circumstances under which conditions of the licence may be amended.[13]

Executive implementation. This category includes agencies which act directly under the Department, such as the Natural Resources Development Council, described below, as well as such practically independent agencies as the Industrial Development Corporation of South Africa, Limited, the South African Iron and Steel Industrial Corporation, the Electricity Supply Commission and the Fisheries Development Corporation of South Africa, Limited. The Department's powers with regard to the latter group are limited; they consist chiefly of the appointment of directors.

The Natural Resources Development Council was established under Act 51 in 1947, with the object of planning and promoting the more effective development and use of the natural resources of the Union of South Africa.

---

[13] "Liquid Fuel and Oil Act", *Government Gazette*, 17 June 1947, page 108.

The Council consists of nine to eleven members appointed by the Governor-General; one member is nominated by the Administrator of each province, and the others are selected on the basis of administrative ability or special knowledge of regional planning.

Important functions of the Council are to advise the Minister of Economic Affairs concerning the establishment of controlled areas, described below; to investigate the best means of developing and using natural resources, including land; to prepare projects—other than town planning projects—for the development and use of such resources after consultation with governmental departments, local authorities and other bodies; to consider plans of departments, local authorities and similar agencies and to submit them to the Minister of Economic Affairs with recommendations; to facilitate, guide and, if necessary, to establish contemplated enterprises after consultation with interested bodies; and to advise and assist statutory authorities concerning the subdivision and use of land in controlled areas.

In controlled areas, the use of land is regulated strictly, by means of permits issued by the Minister of Economic Affairs in consultation with the Council. Regional committees may be established for any controlled area to assist the Council.

3. *Industrial Development Corporation*

Act 22 of 1940 established the Industrial Development Corporation of South Africa, Limited, with the object of guiding and assisting the financing of new industries and industrial undertakings, as well as planning for the expansion, better organization and modernization of operations in existing industries and industrial undertakings. An amendment in 1942 empowered the corporation, subject to prior approval of the Governor-General, to establish and operate industrial enterprises.[14] The corporation was to be managed and controlled by a board of four to seven directors, of whom four, including the chairman, might be appointed by the Governor-General, and three, including the deputy chairman, might be chosen by the private shareholders.

The amount of capital which the Corporation might extend to an individual concern was not restricted, provided it was not an unduly large proportion of the total amount required. The corporation was expected to utilize its funds for the purpose of assisting the establishment of new industrial ventures and the expansion of existing enterprises. The law provided that when the enterprises were firmly established the corporation would make its holdings available for public investment, thereby releasing its own resources for assistance to other ventures.

---

[14] Industrial Development Corporation of South Africa, Limited, *Its Functions, Scope and Methods of Operation* (Johannesburg), page 4.

The nominal capital of the corporation was £SA 5 million, divided into 500,000 *A* shares, and 4.5 million *B* shares of £SA 1 each.[15] The *A* shares, held by the Government, conferred control of the corporation; the *B* shares, though subscribed by the Government, might eventually be offered to the public.

4. *Iron and Steel Corporation*

The South African Iron and Steel Industrial Corporation, Limited was established and incorporated under the Iron and Steel Industry Act of 1928, for the purpose of undertaking large-scale iron and steel production. Private enterprise had previously been unable to develop the industry to any considerable extent despite the availability of the principal raw materials—iron ore, coking coal, limestone, dolomite, manganese ore and fluorspar. The Government established a public corporation in which the State, as well as the public, would participate financially, in order to combine the advantages of private enterprise with public ownership.

The act gave the corporation a wide range of activity. It was empowered to trade in iron and steel, to acquire enterprises, to produce iron and steel, to prospect for iron deposits and for minerals capable of use in the production of iron, to acquire an interest in similar concerns, to buy and sell fuel, oil, steam, water, materials and stores, to acquire land and property and to manufacture and sell by-products.

The board of directors of the corporation consisted of four members, including the chairman, appointed by the State, and three others chosen by private shareholders.

The capital structure of the corporation consisted of 500,000 *A* shares of £SA 1 each, held by the Government and providing the majority voting power, and 9.9 million *B* shares of £SA 1 each, available for public subscription. Amendments to the original act, in 1942, 1946 and 1947, permitted the issue, with the Governor-General's approval, of a further 17 million *B* or "Preference" shares of £SA 1 each.

5. *Electricity Supply Commission*

The Commission, established by the Electricity Supply Act of 1922, consisted of three to five members appointed by the Governor-General. Its functions were described in the act as follows:

"Establishment, acquisition, maintenance and working of undertakings for an efficient supply of electricity to Government departments, the South Africa Railways and Harbours Administration, local authorities, companies and other persons carrying on industrial undertakings or to any person whatsoever in the Union.

"Investigation of new or additional facilities for the supply of electricity within any area and for the co-ordination and co-operation of existing undertakings so as to stimulate the provision, wherever required, of a cheap and abundant supply of electricity."[16]

---

[15] The South African pound was equal to approximately US$4.03 prior to the devaluation of September 1949.

The Commission was empowered to finance its undertakings by fixed-term, interest-bearing loans, but not by capital shares. The Commission's undertakings were governed by two basic principles: They were to be operated, so far as practicable, at neither profit nor loss; and the finances of each undertaking were to be treated separately. The first condition was modified by the Electricity Amendment Act of 1947, which provided that the Minister of Economic Affairs might authorize the Commission to supply electricity below cost, initially, if he considered that it would materially assist the development of a particular area, and that an undertaking in the area would eventually pay for itself. The losses thus incurred were to be refunded to the Commission from funds allocated by Parliament for that purpose and were to be repaid by the Commission when the undertaking was on a financially stable basis.

6. *Fisheries Development Corporation*

This corporation was established under the Fishing Industry Development Act of 1944, to promote the fishing industry by direct operations or by financial and other assistance to existing or projected enterprises. The corporation was empowered to engage in research, to acquire shares or make investments in concerns connected with the industry, and to erect necessary plants. It was also authorized to provide housing, social and health services, pension and provident funds, hospitals and similar services for fishermen and others engaged in the industry.

The corporation was to be administered by a board of directors, the majority appointed by the Governor-General. The capital of the corporation consisted of 500,000 *A* shares of £SA 1 each, owned by the Government, and of *B* shares of £SA 1 each, which might be sold to the public; issuance of 331,658 *B* shares was authorized.

7. *Railways and Harbours Administration*

The railways and harbours of the Union of South Africa are, with very few exceptions, government-owned. According to the South Africa Act of 1909, they are to be administered "on business principles, due regard being had for agricultural and industrial development within the Union and promotion by means of cheap transport of the settlement of an agricultural and industrial population in the inland portions of all provinces of the Union".

In accordance with these principles, bulk commodities, chiefly coal, produced in the interior, have been transported to the coast at low railway rates, sometimes below cost. Since the war, especially, industry situated on the coast has been supplied with relatively cheap fuel, and coal exports from the Union have been given indirect assistance.

---

[16] Union of South Africa, Social and Economic Planning Council, *Report No. 10, Public Works Programme and Policy* (Cape Town, 1946), page 55.

The Railways and Harbours Administration also operates South African Airways and numerous motor road services.

8. *Other agencies*

The following agencies of the Union of South Africa are also concerned with problems of development; their more important operations are described in greater detail below:

The Department of Agriculture promotes agricultural development through conservation work, education, research and informational services in relevant fields, such as pest control, animal health and price stabilization. Its services, especially those connected with research and soil conservation, are extensive and are supplemented by grants of financial assistance to farmers.

The Department of Mines is responsible for administering the mining laws, exercising technical supervision over mining and, in general, assisting the development of the mining industry.

Other departments concerned with development include the Departments of Forestry, Irrigation, Lands—responsible for land settlement schemes—and Native Affairs.

C. Research

1. *Council of Scientific and Industrial Research*

The South African Council of Scientific and Industrial Research, one of several public institutions established by law to engage in research and thus to provide assistance in industrial development, was created under the Scientific Research Act of 1945. It deals with matters affecting scientific and industrial research which are assigned to it by the Prime Minister, or it may undertake studies of its own accord, with the approval of the Prime Minister. The Council also advises the Prime Minister on scientific and technological aspects of the use of natural resources, the development of industries and the co-ordination and application of scientific research.

Among the important activities of the Council were the creation of industrial research associations, in co-operation with appropriate industries, including the establishment of associations for the leather, fish, paint and sugar-milling industries, and the planning of an association for clay and ceramics.

The Council also established specialized research laboratories and institutes; the most important, the National Building Research Institute, has provided solutions for many technical problems in connexion with the building programmes. Other specialized research laboratories of the

Council include the National Physical Laboratory, the Telecommunications Research Laboratory, the National Chemical Laboratory and the National Bureau of Personnel Research.

2. *Fuel Research Institute*

Established in accordance with the Fuel Research Institute and Coal Act of 1930, the Institute conducted research and investigation in various solid and liquid fuels. Among its principal activities were a physical and chemical survey of the country's coal resources, a study of coal grading, and a sampling of railway coal. The Institute has prepared an extensive programme for chemical research in coal, in conjunction with the Council of Scientific and Industrial Research.

II. Development projects

A. MANUFACTURING INDUSTRIES

Tariff Act 36 of 1925, which amended and superseded the customs tariff formerly in force, inaugurated a policy of protection designed to encourage industrial development, as well as to yield revenue. The level of tariff duties has been relatively moderate; raw materials and capital goods imported by manufacturers for industrial purposes entered under a system of rebates of duty. Encouragement of local industries was provided in the following manner:[17]

(*a*) Reasonable tariff protection for existing industries that show prospects of successful development and that may be expected to provide employment for the increasing population;

(*b*) Suspended duties for the purpose of encouraging the establishment of new industries or the expansion of existing industries;

(*c*) Free admission or low rates for raw materials and industry requisites which are not produced in the country; and

(*d*) Protection of local industries against dumping.

The Industrial and Agricultural Requirements Commission, in its 1941 report, *Fundamentals of Economic Policy in the Union*, opposed a system of over-all protection and stressed the need for periodic revision of individual instances of protection, to ensure efficient operation of protected industries and termination of protection when no longer justified.

The Board of Trade and Industries in its report, *Investigation into Manufacturing Industries in the Union of South Africa, 1945*, also favoured a selective tariff policy based on investigation and constant supervision by the Board. In order to stimulate industrial development by attracting new industries, the report recommended that the practice of suspending duties should be used more widely and, in special cases of extensive use of protected primary or semi-manufactured raw materials, that industries should be assisted in the development stage by means of grants or subsidies rather than high duties.

---

[17] An example of the operation of the policy is contained in the section on iron and steel, below.

1. *Industrial assistance*

From its establishment in 1940 to June 1948, the Industrial Development Corporation of South Africa, Limited, granted 111 applications involving financial assistance, to the amount of £SA 6.1 million. Of this total, £SA 2.1 million was for the textile and clothing industry and £SA 1.2 million, for the metal and engineering industry.[18]

Important ventures of the Industrial Development Corporation of South Africa, Limited, included the following:

Cotton textiles. In co-operation with the Calico Printers Association, Limited, of Manchester, the corporation in 1946 founded the Good Hope Textile Corporation, Limited, to undertake cotton processing, from raw cotton to textiles. This enterprise also constituted an important experiment in establishing an industry within a Native reserve.

Wool. The corporation, which had operated wool washeries during the war, established the Fine Wool Products of South Africa, Limited, in 1945, with a nominal capital of £SA 650,000, for processing wool—one of the country's most important raw materials. By 1945, wool washeries, except for the production of wool-grease, had been transferred to private enterprise.[19]

Animal feed. In 1942, the corporation established National Feeds, Limited, for the production of protein-rich feed, necessary to ensure a year-round balanced diet for South African livestock; this undertaking was expected to increase the current very low milk yield in South Africa. Total output of this type of feed increased from 12,000 tons in 1942 to 325,000 tons in 1946.[20]

Powdered milk. In co-operation with private interests, the corporation established two powdered milk factories which produced 1.25 million pounds of milk powder in 1945.

Food yeast. The corporation co-operated with the South African Sugar Association in manufacturing food yeast; production passed the experimental stage and was to be undertaken on a full-scale, commercial basis.

Grain bags. The corporation assisted in the establishment of a grain bag factory which was expected to produce some 10 million grain bags a year upon the installation of processing machinery. Meanwhile, a retting plant was set up at Nelspruit, and experiments were undertaken in the utilization of local fibres.

---

[18] Union of South Africa, Government Information Office, *South African-American Survey 1949* (New York), page 122.

[19] *South African Financial Year Book*, 1947-48 (Cape Town), pages 472 to 475.

[20] Throughout this chapter reference to tons indicates the short ton of 907.2 kilogrammes, unless otherwise noted.

2. *Iron and steel*

South African Iron and Steel Industrial Corporation, Limited (ISCOR). The original plant of the corporation at Pretoria, which started production in 1934, had a yearly capacity of 450,000 tons of rolled, drawn and forged steel products in 1948. The corporation, which operates an integrated enterprise, covering all activities from the mining of ore to the production of finished steel, also owns the Thabazimbi iron-ore mine, 150 miles from Pretoria, from which it obtains the bulk of its iron ore; reserves of haematite ore at this mine, estimated at 200 million tons, have an iron content of 60 to 70 per cent. Coking coal is obtained from mines owned by private companies in the Transvaal and Natal.

Expansion of plant capacity has been planned in order to meet an increase in consumption requirements, expected to exceed considerably the pre-war annual consumption of some 850,000 tons of steel products. The corporation's programme included construction of new plants at Vanderbijl Park, thirty-five miles south of Johannesburg, with ingot capacity of 320,000 to 350,000 tons, representing an output capacity of 240,000 tons of various flat rolled products. New steel plants were to include coke ovens, blast furnaces, steel melting shops, a slabbing mill and continuous hot and cold strip mills, together with the necessary processing facilities and auxiliary services. The plants might be expanded to an ultimate ingot capacity of 1 million tons.

It was planned that the Pretoria plant would concentrate on other finished products after the plant at Vanderbijl Park had begun to produce the bulk of the sheets and plates required. New installations were to be added to the Pretoria plant for this purpose. Ore mining and coal washing were to be increased because of increased requirements for fuel and iron ore.

Subsidiaries. The corporation has had financial interests in a number of industrial undertakings whose activities complement its own. The most important of these were the Union Steel Corporation of South Africa, African Metals Corporation and the Vanderbijl Engineering Corporation.

The Union Steel Corporation of South Africa, Limited, has manufactured ordinary steel products which were in short supply. It planned to specialize in the manufacture of steel for tools and other special purposes after the corporation's new plant began production.

African Metals Corporation, Limited, has manufactured foundry pig-iron at its blast furnace in Newcastle, Natal, ferro-alloys in an electric furnace in Vereeniging and phosphoric pig-iron and phosphate in Cape Province. The production of ferro-alloys for special steels for tools, which was started in 1941, was an especially promising venture, owing to the abundance of such raw materials as manganese, tungsten and chrome. This project was expected to enable the Union of South Africa to become a substantial producer and exporter of steel alloys.

The South African Iron and Steel Industrial Corporation, in co-operation with American, British and local engineering firms, established the Vanderbijl Engineering Corporation, Limited, in 1944, with a capital of £SA 2 million, for the manufacture of heavy engineering, industrial and mining equipment which had not previously been made in South Africa.

The corporation and its subsidiaries were responsible for over 90 per cent of the primary and semi-manufactured iron and steel production of the Union of South Africa.

Tariff protection. The manufacture of iron and steel products in the Union of South Africa, which amounted to only 16 per cent of domestic consumption requirements in 1934, rose to 33 per cent of needs in 1936. Production of 471,000 tons of pig-iron and 492,000 tons of steel ingots in 1944 represented nearly 70 per cent of immediate pre-war requirements. In 1947, production of pig-iron was 636,000 tons and production of steel ingots, 600,000 tons. The increase in production was stimulated by the system of tariff protection, the so-called c.i.f. scheme, introduced in May 1936.

According to the Board of Trade and Industries, after the establishment of the South African Iron and Steel Industrial Corporation, foreign exporting interests, especially in producing countries which belonged to the international steel cartel, resorted to severe price cutting in order to retain their share of the South African market.[21] The Government of the Union of South Africa, following recommendations in an earlier report of the Board of Trade and Industries, established minimum prices below which imports should not be allowed; the difference between the cost of imported goods and the officially established price was offset by a special duty. The special duty applied to all finished and semi-finished iron and steel products, with the exception of ingots.

As a result of this protection, the price of iron and steel products, which had been depressed by severe international competition, rose and, as a consequence, profits of South African producers increased substantially. For each of the years 1938, 1939 and 1940, the corporation's profits exceeded £SA 1 million on a capitalization of £SA 6 million.

In its 1946 report, the Board of Trade and Industries recommended discontinuance of the special protective tariff which had been established initially for the limited period of two years. The Board stated that the location of the industry in southern Transvaal, the site of its principal market, gave it competitive advantages because of high railway and freight rates; in 1937, railway and freight charges amounted to about 100 per cent of f.o.b. prices on many important items: 103.1 per cent on structural steel, 92.4 per cent on bars and 110.2 per cent on plates. The report stated that, since almost the entire output of the industry could be sold in the interior, tariff protection placed a heavy unnecessary burden on the steel-consuming industries of the coast. The Board also considered that the corporation had been established in order to provide cheap iron and steel for secondary industry, not to obtain maximum dividends for shareholders—virtually, the Government—and that the policy of the corporation should be directed towards this primary objective. The Board further recommended that the cost of capital expenditure incurred during the war for equipment needed for military production be written off, and that expansion of the industry be postponed until prices for capital equipment were lower.

---

[21] Board of Trade and Industries, *Investigation into the Iron, Steel, Engineering and Metallurgical Industries in the Union of South Africa* (Cape Town, 1946), pages 39, ff.

3. *Synthetic oil industry*

The first licence for producing oil from coal, required under the Liquid Fuel and Oil Act of 1947, was granted by the Government to the Anglo-Transvaal Consolidated Investment Company, Limited. American and British capital was largely responsible for financing the company, which planned to establish a plant at Vereeniging on the Vaal River, the location of extensive coal deposits and the site of the new steel works at Vanderbijl Park. The plant to produce oil from coal was expected to cost some £SA 13 million. When completed, an annual output of 60 million gallons of petrol and 10 million gallons of Diesel oil was expected.[22]

B. Electric Power

The Electricity Supply Commission (ESCOM), established in 1922, began to function the following year and purchased the Victoria Falls and Transvaal Power Company in July 1948, for about £SA 15 million. The total production of electricity in the Union of South Africa increased from 1,218 million kilowatt-hours in 1923 to about 9,300 million in 1948, and by the beginning of 1949, the Commission was supplying about 80 per cent of the total power generated in the Union. Prior to the purchase of the Victoria Falls and Transvaal Power Company, the Commission had established three large power stations—Witbank, Klip and Vaal—in the gold-mining Rand area, as well as other electric power stations at Cape Town, Durban and Colenso, which supplied electricity to municipalities, electrified railways and electric power consumers of all types.

---

[22] Government Information Office, *South African-American Survey 1949*, page 161.

The Commission's numerous plans for developing electric energy included the construction of a new electric power station at Vierfontein to supply new gold-fields in the Orange Free State and also parts of the Transvaal and northern Cape Province, a total area of 16,000 square miles. Initial installations were to consist of three 33,000 kilowatt turbo-alternators, boilers and auxiliary plant, with provision for subsequent expansion.

It was also planned to erect a new plant in Worcester at a total cost, including additions and alterations to existing facilities, of £SA 4 to £SA 5 million, in order to provide power for the electrification of the Cape's principal railway line. The plans provided for an initial plant consisting of three 20,000 kilowatt turbo-alternator sets and for the eventual installation of three additional sets of similar type.

Negotiations were under way for the acquisition of the power stations of De Beers Consolidated Mines, Limited, at Kimberley, to supply electricity to the municipality of Kimberley and also to become the nucleus of a large project to provide power for industry and agriculture in the area.

The Commission also planned to increase the installed capacity of its plants. Four 33,000 kilowatt turbo-alternators, in addition to the three in operation, and two 7,000 kilowatt house sets, were ordered for the Vaal station. Two 40,000 kilowatt sets were planned for the Table Bay power station. A 40,000 kilowatt turbo-alternator and two boilers were installed at Congella, and a third set was ordered for this plant for 1950. A 25,000 kilowatt alternator was to be installed at Colenso and a 25,000 kilowatt set, at Witbank. The East London power station was to be extended in order to provide electricity for a wide surrounding area.

Implementation of development plans has been held up by delays in delivery of plant and equipment from overseas. Only a relatively small part of the material required can be supplied by domestic sources, although there are projects for manufacturing electrical equipment within the country.

In commenting on the plans for developing electric power, the Social and Economic Planning Council in its report, *Public Works Programme and Policy*, emphasized the need for greater electrification of the railways and stressed the necessity for more extensive rural electrification, suggesting a basis similar to that provided under the Rural Electrification Administration in the United States.

C. TRANSPORT

The South African Railways and Harbours Administration operates railways, harbours, shipping services, airways, road motor services, lighthouses, grain elevators and a radio, telegraph and telephone system in the Union of South Africa and in the Mandated Territory of

South-West Africa. By 31 March 1948, the capital invested in these services amounted to £SA 251 million. The services covered 14,000 railway route-miles, 23,000 road motor route-miles and some 12,000 air route-miles.[28]

Since transport facilities were insufficient to accommodate the steadily increasing traffic of the Union, an extensive programme of transport development was undertaken. The comprehensive replacement programme prepared for the railways before the war was supplanted by one that could be implemented in stages. It included plans for the following objectives: purchase of locomotives, coaches and waggons; encouragement of South African production of rolling stock; provision of new stations at Johannesburg and Cape Town and later at other major centres; construction of new marshalling and goods yards; electrification of sections of line in the Transvaal, Natal and the Western Cape Province; construction of three major airports—at Johannesburg, Cape Town and Durban; and several other projects of rehabilitation and re-equipment.

Some of the plans have been implemented; the Sturrock Graving Dock at Cape Town, costing £SA 3.5 million, was completed in September 1945, and the Princess Elizabeth Graving Dock at East London was commissioned in 1947. Two new railway lines were constructed: one line, 20 miles long, to serve a newly developed coal area in the Transvaal, and the other, 24 miles in length, to the Orange Free State goldfields. In addition, new workshops were provided at Pretoria, Durban and Cape Town.

As part of the long-range programme, the Railways and Harbours Administration proposed to purchase, during five years, over 50,000 goods waggons and a number of locomotives and passenger vehicles. In 1948, 18,000 vehicles of different kinds were ordered from local and oversea manufacturers. Supplies from Canada and the United Kingdom began to arrive in June 1948; of 100 main-line locomotives ordered, 68 were placed in service during the year.

A plan to develop national roads, submitted by the National Roads Board in 1936 and approved by the Government, provided for the construction of about 5,400 miles of asphalt road. Because of delays connected with the war, only about two-thirds of this programme was completed.

The Social and Economic Planning Council, in commenting on the programme for roads, emphasized the necessity for road development on a much larger scale than the plan provided, in view of the increasing importance of road transport and, especially, of the road feeder services of the railways. According to the Council, road construction, with its relatively large expenditure for wages, would also provide a desirable method of balancing fluctuations in general economic activity and employment.

---

[28] Railway Gazette Publication, *Overseas Railways 1948* (London, England), pages 3 to 7.

D. MINING

Although private enterprise has been largely responsible for the development of the mining industry in the Union of South Africa, the industry has received considerable governmental assistance because of its pre-eminent position in the country's economy.

Technical assistance has been provided to mines by the Geological Survey, which has assayed minerals for prospectors, and by the mineral research laboratory of the University of Witwatersrand, established in co-operation with the Department of Mines, which has investigated problems concerning the development and utilization of both metallic and non-metallic minerals. The Mineral Development Section of the Department of Mines has furnished information concerning mineral resources and the supply, demand and marketing of base minerals.

Small mines outside the Rand area have been given financial and technical assistance under a scheme initiated in 1936; in approved cases, loans were granted for mine machinery, mine development and other purposes. Since 1936, loans amounting to about £SA 200,000 have been advanced to more than a hundred mines. Apart from this scheme, grants have been made to mines to enable them to survive critical periods.

State aid to gold-mining has been manifested chiefly in fiscal policy. Although it has been customary to apply higher rates of taxation to gold-mining than to other industries, the Government found it necessary to reduce the costs of mining gold in order to maintain production in the Rand mines. An official inquiry into the effect of taxes on costs was undertaken in 1945, and the resulting recommendations led to changes in tax policy. The principal tax concession permitted new gold-mines to treat capital expenditure as operating cost; other gold-mines were granted a redemption allowance of 22.5 per cent of the balance of unredeemed capital expenditure at the date of assessment. The tax rate was graduated, to cause less burden on low-grade mines, and was designed to permit 6 per cent of the revenue to remain tax-free.

The establishment of a Deep Level Mining Research Institute was authorized under an act of 1946, since gold-mining was increasingly conducted on a deep-level basis.

Under the Base Minerals Act of 1942 the Government was empowered to prospect and to develop base mineral resources, although possession, and the right to mine, continued to be vested in the owner.[24] Under this law, the Geological Survey has undertaken an economic survey of resources of base minerals. Investigations have been made of tungsten fields in Cape Province, corundum fields in northern Transvaal, tin resources in central Transvaal and coking coal possibilities in the Waterberg area.

---

[24] According to Transvaal law, also applicable to the Orange Free State.

A coal commission made a survey of known deposits of coking coal, which appeared very limited, although coal for other purposes was abundant. The commission investigated the feasibility of reserving coking coal supplies solely for the metallurgical industry.

The Government controls alluvial digging for diamonds and limits sales in accordance with agreements between the State and the principal producers. These measures were intended to stabilize the diamond market.

The region of new gold-fields in the Orange Free State was the first controlled area to be established under the Natural Resources Development Act, 1947, mentioned above. On 13 October 1948, after a year's experience, the Council announced its policy respecting the area.[25] The area was divided into a "normal rural area" and a "gold-fields area" for planning purposes. In the normal rural area, where the rapid development of sound agriculture, designed to support a farming community, was considered desirable, the Council stated that it would not recommend subdivision of land into units of less than 200 morgen (a morgen equals 2.116 acres). The Council encouraged the establishment of rural subcentres containing schools, shops and other social and economic services. The Council expected to control changes in land use in order to avoid steps which might interfere with the planned subcentres.

The gold-fields area, comprising lands where mines were leased or gold-reefs were indicated, and their immediate surroundings, was treated extensively in the Council's policy announcement, which contained the following recommendations: (*a*) Towns in the area should have no more than 50,000 Europeans each and should be separated by rural areas, to accommodate expected population increases; (*b*) the land should not be subdivided into agricultural plots which might interfere with the future development of towns; and (*c*) the development of railways and roads should be encouraged. The Council specifically recommended a rail link between the Rand and the Orange Free State goldfields, and national roads to connect Odendaals Rust and Bothaville, Klerksdorp, Kroonstad, Hennenman and Ventersburg. The Council also planned to consider the practicability of a detailed development scheme for the area.

---

[25] Union of South Africa, Department of Commerce and Industries, *Commerce and Industry*, April 1949, pages 516 to 518.

E. AGRICULTURE

The Government's general policy for the development of agriculture was outlined in the *White Paper on Agricultural Policy,* issued in 1946 by the Prime Minister, and was implemented by the Soil Conservation Act of June 1946.

According to this report, South African agriculture has suffered from unfavourable natural conditions—poor soil, uneven temperature, irregular rainfall—and also from improvident methods, such as close grazing and monoculture, which have resulted in considerable soil erosion. Such practices were attributed to inadequate knowledge on the part of farmers and, following the 1929 depression, low prices, which led farmers to cultivate for maximum yield, with little heed for the maintenance of soil fertility.

In order to prevent extreme price fluctuations, the Government planned to maintain a policy of orderly marketing, under the control of marketing boards established by the Marketing Act of 1937. It was not planned to maintain fixed prices for farm produce, but to achieve price stability in relation to world agricultural prices and to prices of non-farm products and, by this means, to bring about improvement in agricultural productivity.

The *White Paper* stated that while agriculture as a whole was assured of reasonable protection under the policy, preferential treatment in price policy towards the least productive branches of farming, and those ill-suited to South Africa, was to be discontinued at the earliest feasible time. Maladjusted branches of farming were to be given assistance in a form designed to promote and expedite their improvement. In the event of surpluses, it was planned to expand subsidized food supplies for lower income groups instead of resorting to the pre-war practice of exporting surpluses at a loss.

With the achievement of greater agricultural stability, the *White Paper* considered that it would be possible to direct farm production towards conservation methods. This would require reorganization of farming systems, to check erosion, denudation, depletion of fertility and loss of water. For this purpose, crop and animal production were to be integrated, and restorative legumes and perennial grasses introduced in rotation. These changes in farm practices were to be combined with various anti-erosion measures to check the flow of water and loss of soil, which were so far advanced in some areas as to require virtual reclamation of the land.

The Soil Conservation Act established a Soil Conservation Board, to advise the Minister of Agriculture, who has executive powers over all matters relating to soil conservation. The Board was made the principal agency responsible for preparing soil conservation projects and for examining proposals prepared by other agencies or projects already in operation.

The Board consists of the Secretary of Agriculture, who is its chairman, the Secretaries of the Departments of Lands and Native Affairs and the Directors of Irrigation, Forestry, Soil Conservation and Extension. Other members appointed by the Governor-General include five farmers who are appointed from a panel of ten names presented by the South African Agricultural Union and four additional members who are appointed on the basis of their knowledge or experience of soil conservation and reclamation.

The act provided for the establishment of two types of organization for soil conservation: conservation areas and conservation districts.

Conservation areas were to be established when deterioration or soil erosion was so far advanced that required reclamation measures could not be undertaken by the landowners. Such areas were to be established on recommendation of the Soil Conservation Board by proclamation, whenever the Governor-General considered that land should be reclaimed or conserved at public expense in the national interest. The Government was authorized to expropriate land or suspend the property rights of the owners if they did not agree to carry out required conservation measures at their own expense. The Government might render financial assistance, in the form of subsidies, grants, advances or rebates, for reclamation and conservation work undertaken by landowners in accordance with approved soil conservation plans.

Conservation districts were to be established by the Minister of Agriculture on the recommendation of the Soil Conservation Board when a majority of the landowners in the area applied. The districts are administered by district committees, whose members are appointed by the Minister; two-thirds of the members are farmers of the district, elected by the landowners concerned. The district committees prepare soil conservation plans which describe the conservation projects to be constructed and maintained by the State and by the landowners, and the soil conservations measures to be applied to the land, including crop rotation, temporary withdrawal of specified land from cultivation or grazing and restriction in number and kind of livestock to be grazed. The district schemes are communicated to the landowners of the district for approval or objection and are then submitted, together with the landowners' opinions, to the Minister. The Minister, after consultation with the Soil Conservation Board and upon its recommendation, may adopt the scheme, which becomes binding upon all persons concerned.

By the spring of 1949, nearly one-fourth of the Union's total farm lands—nearly 30 million morgen—had been proclaimed conservation areas. About 50 committees were operating in the more than 242 districts embracing the conservation areas, and these had submitted comprehensive schemes for approval by the Soil Conservation Board.[26]

---

[26] Government Information Office, *South Africa Reports* (New York), 12 May 1949, page 5.

The conservation programme applied chiefly to areas where Europeans owned the land, but plans were being made to include in the general programme certain areas where the interests of both Europeans and Africans were involved.

The total expenditure for the soil conservation programme has not been determined; the Department of Agriculture has estimated its cost to the Government at about £SA 100 million during a 20-year period.[27] This is in agreement with the Social and Economic Planning Council's estimate of £SA 5 million annually for soil conservation.

The soil conservation programme was expected to safeguard the future of South African agriculture, by saving and improving the soil and other natural resources and, also, by rationalizing farm methods and concentrating crops in the most suitable soils, to increase productivity considerably and thus make possible improvement in standards of nutrition among underfed groups in the population.

F. FORESTRY

A very small part—about 0.5 per cent—of the area of South Africa is forested. Although only a relatively small part of the land is suitable for afforestation, a favourable combination of climatic factors—temperature, rainfall, humidity—has produced a more rapid rate of timber growth in South Africa than in countries with more moderate climate; the yearly increment of a suitable selection of fast-growing pine is 280 cubic feet per acre.[28] Under these conditions afforestation is a practical undertaking. The total area of land better suited to afforestation than to other use is about 2 million acres.

Before the war the Forestry Department afforested 15,000 acres annually. The forested area in March 1944 amounted to 385,500 acres, of which 279,500 acres were in softwood. Under the pressure of war needs, production of softwood logs increased from fewer than 2 million cubic feet in 1938 to 17 million cubic feet in 1944, but this increase was obtained partly through over-exploitation.

The pre-war consumption of softwood in South Africa was estimated at 70 million cubic feet, and the demand has increased steadily. In order to meet requirements, the Government planned to increase the yearly afforestation rate from 15,000 to 35,000 acres. It was expected that in five years the total forested area would be 1.2 million acres, of which 1 million would be in softwood. As a result, productive capacity at the end of 50 years was expected to increase to 180 million cubic feet of logs per year. This programme involved the expenditure for afforestation and maintenance of £SA 15 million during 25 years, in addition to the cost of land to be afforested. In view of existing difficulties, it was expected that the increase in the afforestation rate would be gradual but would reach 35,000 acres in 1949.

---

[27] Union of South Africa, Social and Economic Planning Council, *Report No. 10, Public Works Programme and Policy* (Cape Town, 1946), page 43.

[28] *Ibid.*, pages 45 and 46.

G. IRRIGATION

The activities of the Department of Irrigation in the past have been concerned chiefly with the comparatively limited purpose of irrigating agricultural lands; only more recently has the more general task of conservation of water resources been undertaken.

The Government developed irrigation projects in connexion with land settlement programmes which subdivided land into small holdings to be made available to settlers. Irrigation was also encouraged by loans to communities of farmers, organized into irrigation boards.

The results of both methods were unsatisfactory. The cost was high for very limited results, and little consideration was generally given either to conservation of water resources or to their use for purposes other than agriculture. A report by the Director of the Division of Soil Conservation and Extension indicated that only a small addition to the country's arable production might be expected through irrigation; of the country's 143 million morgen, only about 1 million morgen was likely to be irrigated.[29]

An amendment to the Irrigation Act in 1946 instructed the Government to utilize the waters of the Union of South Africa in accordance with broader principles of regional development; under the act, water was to be collected in catchments and divided according to various uses —for rural communities, urban areas, industries, etc. The Irrigation Department planned to initiate multiple-purpose schemes wherever possible, to develop flood control on rivers and to intensify drilling activity, in order to supply better facilities for drinking water in pastoral areas.

A most important regional project was begun in the area of new goldmines in the Orange Free State. Water was to be provided for these mines by pumping supplies from the Vaal River in the vicinity of Odendaals Rust. A pilot project has been authorized for 4 million gallons a day, which may be increased to 20 million gallons a day within ten years. It is then expected to provide sufficient water, not only for the mines, but also for surrounding towns.

Two storage units under construction in the Orange Free State, on the Sand and Vet Rivers, are expected to irrigate 20,000 morgen, or 42,400 acres of new land; this is to be divided among the greatest possible number of farmers in plots of twenty to thirty morgen (about 42 to 64 acres) to provide them with fodder banks in case of drought. In the border area of Cape Province, projects were undertaken to provide water supplies for Queenstown, Stutterheim, King Williams Town and surrounding rural areas. On the Fish and Sundays Rivers in the Cape, water from the Orange river is to be introduced into enlarged storage units in order to extend the irrigated area and to help stabilize irrigation in the river valleys.

---

[29] Government Information Office, *South Africa Reports* (New York), 12 May 1949, page 5.

Additional projects which were prepared have been held in abeyance, to be utilized as a means of combating unemployment in the event of business decline.

H. LAND SETTLEMENT

The land settlement acts of the Union of South Africa empowered the Minister of Lands, with funds appropriated by Parliament, to allot crown-lands and to purchase privately owned land, for subdivision into suitable holdings for agricultural and pastoral uses.

During the war no allotment of crown-lands took place, but the Department of Lands continued to develop lands for future allotment. About 42,000 acres under irrigation and more than 1 million acres of agricultural and pastoral land have been developed and have begun to be allotted. This development, which has been delayed by shortages of qualified staff and equipment, was expected to lead to a considerable increase in agricultural production.

I. NATIVE AREAS

The Native reserves, which are the responsibility of the Department of Native Affairs, have become increasingly over-populated and are also over-stocked. This has resulted in over-exploitation and erosion of the soil to a greater extent than in other areas.

In 1945 the Department of Native Affairs began to implement a long-term reclamation project for the Native reserves; this was intended to increase and vary the food supply, to improve the use of the land and to raise living conditions in the areas by stock limitation, redemarcation of grazing, arable and residential areas, soil conservation and restoration of soil fertility. It was also planned to remove some of the farm population for settlement in specially established villages, to work in neighbouring European centres or in industries that may be developed in the reserves.

The cost of the reclamation programme was to be covered by annual appropriations by the Parliament of the Union of South Africa. The total expenditure for the period from 1946 to 1956 was estimated at

£SA 9 million, to be distributed as follows (in thousands of South African pounds):[30]

Soil conservation	4,490
Fences for settlement areas	2,395
Water supplies	890
Irrigation projects	68
Tree planting	120
Roads and causeways	700
Settlement schemes	337
TOTAL	9,000

In commenting on the programme, the Social and Economic Planning Council, although approving it as a whole, stated that "soil conservation measures will be needed on at least as large a relative scale in Native as in European areas". According to the Council, development plans for Native areas have been too closely confined to the improvement of agriculture; power and transport facilities which are needed to develop industries in Native reserves have not been established or even planned. The Council recommended that a regional development corporation be created for this purpose.

J. FISHING

The Fisheries Development Corporation, since its establishment in 1944, has devoted considerable effort to the expansion of the fishing industry.

The lack of suitable all-weather harbours has been a major obstacle in expanding the industry. A survey undertaken by the corporation found that it was necessary to concentrate fishing activity in a few main centres, where adequate and safe harbours were already in existence or where they could be constructed at reasonable cost.

The corporation recommended to the South African Railways and Harbours Administration that a safe all-weather harbour be established at Knysna for this purpose. The cost of dredging and constructing the necessary sea wall was estimated at £SA 300,000 and yearly maintenance, at £SA 8,000.

The Government allocated £SA 120,000 for improvement of the harbour at Lamberts Bay. Work on construction of the harbour at Hermanus, which has cost £SA 208,750 thus far, was to be completed. In Gansbaai further harbour extensions for fishing were to be undertaken at a cost of £SA 69,500. At Hout Bay, a slipway costing £SA 9,500 was to be built. The corporation itself undertook the construction of a jetty at Stompneus, at a cost of £SA 13,000, to serve the boats engaged in catching pilchards.

In co-operation with several fishing and packing companies, the corporation has established the St. Helena Bay Fishing Industries, Limited, for catching pilchards off the west coast of South Africa as a source of food and oil. The authorized capital of the company was £SA 200,000, of which £SA 100,000 has been issued. Machinery to handle 200 to 250 tons of pilchards a day, as well as a quick-freezing plant to make part of the catch suitable for human consumption, has been ordered.

---

[30] Union of South Africa, Social and Economic Planning Council, *Report No. 10, Public Works Programme and Policy* (Cape Town, 1946), page 53.

The Fisheries Development Corporation has instituted a project to assist fishermen in acquiring fishing boats and gear on credit.

A Fisheries Research Institute has been established by the corporation in co-operation with the Council of Scientific and Industrial Research. The corporation has conducted experiments in rearing crawfish —crawfish beds on the coast have been overfished and depleted—and in breeding oysters.

In order to develop the fishing and fish packing industry, the corporation has assisted a number of leading concerns in these fields by investing capital to the extent of a one-third share in the enterprises; this investment was to be devoted to expansion and modernization of plant and equipment. The companies in which the corporation held shares included the following:

Lamberts Bay Canning Company, Limited, which erected a modern plant for the reduction and packing of pilchards, capable of treating 10 tons of fish per hour, at a cost of about £SA 100,000;

Stephen Brothers, Limited, which planned to erect a modern tinning and processing plant at Steenberg's Cove;

Ocean Products, Limited, which was engaged in extracting vitamin oils from sharks and planned to erect a cold storage and ice-making plant at Gansbaai;

South African Sea Products, Limited, which has built a modern plant for extracting vitamin oils at Hout Bay, and has added a freezing and processing plant;

Table Mountain Canning Company, Limited, which planned to establish a fishing enterprise in South-West Africa; and

Laiplok Fisheries, Limited, which processed fish for human consumption and intended to expand its production of meal and oil from pilchard.

K. Trading Estates

The report of the Social and Economic Planning Council, *Public Works Programme and Policy,* recommended that the Government establish trading estates similar to those created in the depressed areas of Great Britain during the year prior to the Second World War.

The Council considered that industrial centres, with a large number of diversified industrial undertakings for which necessary facilities, such as power and transport, were furnished on a collective, economical basis, would be particularly useful in areas suffering from the decline of old industries; new undertakings might also take advantage of available man-power and might utilize existing facilities at lower cost than in newly established areas.

The Council especially recommended that trading estates be established in gold-mining towns, to encourage other industrial activity after the mines were exhausted, and in Native reserves, where industrial undertakings could absorb the man-power not needed for agriculture.

L. Public Works

The Social and Economic Planning Council originally intended to report on a correlated long-term programme of public works, but it was unable to draw up a full programme and to assign detailed priority ratings to all projects.

The published report contained a review of the programmes proposed by various public authorities for the post-war period, the criteria by which a public work programme should be judged and an assessment of the economic conditions in which the post-war public work programme should be applied.

The Council considered the importance of public work programmes in compensating cyclical variations and recommended that such programmes be reduced for the duration of the post-war boom, and that all work not immediately needed be postponed until economic activity slackened and inflationary pressure had abated. Exception was made, however, in the case of public works urgently needed to protect national resources and to increase national productivity for essential social purposes. The Council thus recommended soil conservation, afforestation and irrigation work which appeared urgent, some investment in railway materials and roads, as well as the implementation of a large-scale housing programme. The Council also stressed the need to prepare an adequate reserve of public works for implementation when activity should slacken.

Although the agencies and authorities concerned with public works appeared to have planned to fulfil their programmes without the recommended delay, they were not able to accomplish their objectives, owing to shortages and delays in delivery of imported equipment for the railways, the electric power stations and the iron and steel industry, as well as to the lack of trained personnel for soil conservation and afforestation projects.

M. Financing

Government funds to finance the operation of development projects have been derived from appropriations voted by Parliament. The Constitution of the Union of South Africa provided for a consolidated revenue fund into which all revenues, except those of the Railways and

Harbours Administration, were paid. The fund consisted of a revenue account and a loan account; the former was credited with money received from revenue proper, the latter, with money derived from loans, repayment of loans, alienation of fixed property and such other income as Parliament might direct to be paid into that account.

Central Government expenditures from the loan account have generally been confined to work of a permanent nature. Charges on the revenue and loan accounts were provided by annual appropriation acts, and withdrawals from the consolidated revenue fund might be made only under the authority of such acts. The power of appropriation for financing railways and harbours, for which there was a separate financial account, was likewise vested in the Parliament.

Total expenditures for economic development in several years of the past decade for which data are available are shown below.

TOTAL EXPENDITURES FOR ECONOMIC DEVELOPMENT

1939, 1943 AND 1945-1948

(In millions of South African pounds)

Fiscal year ending 31 March	*From revenue account*[a]	*From loan account*	*From capital account of the Railways and Harbours Administration*[b]
1939	7.18	12.18	9.40
1943	8.41	10.78	4.28
1945	11.32	7.05	6.64
1946	14.06	11.32	8.28
1947[c]	12.69	..	14.22
1948[c]	14.10	..	..

Source: Prepared by the Fiscal Division of the United Nations Department of Economic Affairs from budget data supplied by the Union of South Africa.

.. Not available.

[a] Including expenditures by the Ministry of Agriculture and Forestry, the Ministry of Lands, exclusive of deeds, the Ministry of Economic Affairs, the Department of Mines, and expenditures on public works.

[b] Financed chiefly by loans. Expenditures from this account for the intervening years were as follows: 1940, £SA 6.41 million; 1941, £SA 5.05 million; 1942, £SA 6.52 million; and 1944, £SA 5.39 million.

[c] Estimates.

The Parliament has enacted legislation establishing the National Finance Corporation of South Africa,[31] designed to make available more effective short-term investment facilities.

---

[31] Act 33 of 1949; United States Department of Commerce, *Foreign Commerce Weekly*, 1 August 1949, page 28.

The Governor-General was given authority to appoint the directors of the corporation from a list of names submitted by the shareholders. Initial capital of the corporation was £SA 1 million which was oversubscribed by 18 July 1949, the closing date. The allotments of stock were distributed as follows (in South African pounds):

Building societies	100,000
Commercial banks	175,000
Insurance companies	178,750
Gold and diamond mining companies	375,000
Reserve Bank	100,000
Trust companies	35,750
Non-commercial banking institutions	26,500
Other financial institutions	9,000

The stated objects of the corporation were to develop an active money market in the Union and to utilize idle capital in the national economic interest; to help foreign capital in participating in the development of the country's resources; and to stimulate greater co-operation and consultation among different types of financial institution operating in the Union.[32]

---

[32] Government Information Office, *South Africa Reports* (New York), 2 June 1949.

DELHI POLYTECHNIC
LIBRARY

CLASS NO. 311

BOOK NO. N 47 B

ACCESSION NO. 8 6

MGIPC—S5—XVI 17—11-1-49 2,000